FYP Report

2014

How does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry?

Vertigo Ventures

FYP Team 2

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Final Year Project

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Word Count: 24,131

Commissioned by:

UNIVERSITY OF BATH
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GLOSSARY

CFP	Corporate Financial Performance
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
EMH	Efficient Market Hypothesis
ESG	Environmental Social and Governance
FMCG	Fast Moving Consumer Good
GRI	Global Reporting Initiative
KPI	Key Performance Indicator
NFI	Non-Financial Information
NFP	Non-Financial Performance
NGO	Non-Governmental Organisation
PR	Public Relations
PRI	UN-supported Principles for Responsible Investment
R&D	Research and Development
RQ	Research Question
SASB	Sustainability Accounting Standards Board
SME	Small-Medium Enterprise
SRI	Socially-Responsible Investment
UKSIF	UK Sustainable Investment and Finance Association
UN	United Nations
USSIF	US Forum for Sustainable and Responsible Investment
VV	Vertigo Ventures
WBCSD	World Business Council for Sustainable Development

PREFACE

I. EXECUTIVE SUMMARY

We set out to investigate ***"how does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry"*** on behalf of our sponsor, Vertigo Ventures. In order to meet our research scope, we collected secondary data which formed the basis for four research questions. This fragmented approach aimed to incorporate all the important aspects related to our objective.

Primary data collection efforts were directed in line with the research questions. We followed a strategy of triangulation as we combined the use of qualitative and quantitative methods. Results were captured through interview coding and statistical analysis of a survey.

We found that the interdependency of findings from our four research questions increased the complexity of answering our research objective. In order to overcome this, we created a growth model for socially responsible investment.

We predict that investors' interest in responsible practices and sustainable companies will continue to grow, depending on key actors. These include improvements of corporate reporting standards and adoption of non-financial information into mainstream investing, thus making successful integration an industry-wide benchmark.

II. ACKNOWLEDGEMENTS

We would like to express our gratitude and appreciation to those who have helped us during this process. This final report would not have been a success without the support and contributions from the following:

- Our sponsor, Vertigo Ventures, for their support, interest and commitment throughout the project
- Dr Richard Fairchild for his valuable feedback, enthusiasm and guidance throughout
- Dr Ian Crawford for his initial supervision and direction during his temporary charge
- Prof Brian Squire, Dr Gregory Schwartz, Dr Johanne Grosvold, Dr Jooyoung Jeon and Michael Willis, for their valuable opinions and recommendations
- Our questionnaire respondents for taking the time to contribute to our primary data
- Our interviewees for their cooperation, insight and assistance in our research
- Bath Alumni for distributing our survey

III. MEET THE TEAM

Alejandro Agudo-Moliner ***Data Specialist***

Worked independently and provided unique knowledge

Focused on in-depth statistical analysis and formatting

James Gibson ***Team Worker***

Diplomatic team member with an analytical mind-set

Focused on methodology and analysis of qualitative data

Laura Thompson ***Implementer***

Contributed creativity and provided efficiency and direction

Ensured progression on all major chapters particularly the literature review

Mona Formoe ***Coordinator***

Used delegation and decision making to ensure goals were met

Focused on methodology and overall implications

Osas Idubor-Williams ***Monitor Evaluator***

Applied strategic disposition to ensure consistency and thoroughness

Focused on findings and discussion and editor-in-chief

CHAPTER 1 INTRODUCTION

INTRODUCTION

The financial crisis has been identified as a key instigator to the increased awareness of companies' impact on the society and environment in which they operate (UKSIF, 2013). The deterioration of trust in the integrity of institutions, and corporate and political leaders was one of the casualties of the financial crisis of 2008 (Leisinger, 2011). This led to an increase in focus on risk management, corporate transparency and relationships between key actors (Ceres, 2010; PRI, 2013b; Stewart, Berard & Fruscella, 2012). The European Commission identified that "*a new approach is needed to the balance between short-term profit maximisation and sustainable value creation in the longer run*" (PRI, 2013b, p.9).

"*In the wake of the recent global financial crisis, various not-for-profit organisations have emerged to heighten the crucial importance of identifying governance structures that can accommodate social objectives as part of regular corporate life*" (Walls, Berrone & Phan, 2012). Pressure for companies to act more sustainably has come from a variety of stakeholders. Consumers and the general public have heightened expectations of firms' behaviour, and their ability to act sustainably (Brønn & Vidaver-Cohen, 2009).

Aguilera et al. (2006) recognise that the ever-increasing presence of media and the appearance of social networks have contributed to the growing awareness regarding sustainability. Cacioppe, Forster & Fox (2008) further highlighted that "*the need for companies to become more ethical has been dramatically underlined in the public mind by the numerous highly publicised collapses of US-based companies such as Enron, WorldCom* and *Tyco…*" (p.682). As acknowledged by UKSIF (2010) "*the 2008-9 financial crisis and growing awareness of environmental risks have accelerated pressure for change*" (p.2).

Figure 1 displays the increase in company sustainability reporting in different industries, between 2008 and 2013 (KPMG, 2013). This indicates the repercussion of the financial crisis as companies have reacted to the increase in expectations and demands from stakeholders. Interestingly, despite the decreasing rate of reporting for some industries over the last two years, the pharmaceutical industry has improved its performance since 2011 and seen an exponential growth since 2008. This signifies an increase in overall impact awareness in this sector.

Figure 1: Sector reporting trends

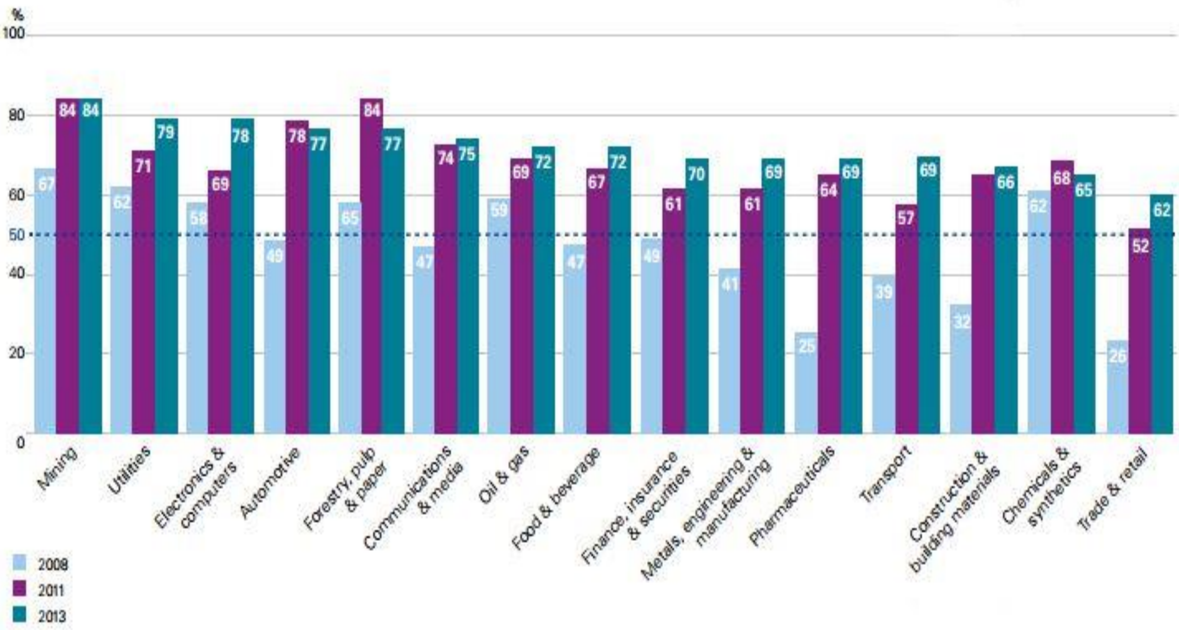


Image source: KPMG International Survey of Corporate Responsibility Reporting, 2013, p.27.

RESEARCH MOTIVATION

Companies are becoming more aware of their impact on society and the environment, as focus shifts to sustaining long-term performance. This is *"set to increase and intensify as the need to move to a truly sustainable economy is understood by companies' and organisations' financiers, customers and other stakeholders*" (GRI, 2013, p.3).

New developments around the global issue of corporate sustainability have fuelled our interest within this area of research. The fragmented development of awareness, reporting and integration within the field, highlighted an opportunity to expand on current literature.

SOURCING THE PROJECT

The varied interests of the group members combined with the practical challenge of our academic exchange made finding a sponsor challenging. As a group, we were keen to secure a project where we could offer meaningful academic and practical contributions. By working with an SME, we felt our recommendations would create significant value for our sponsor.

ABOUT OUR SPONSOR

Vertigo Ventures specialises in providing tools for organisations to demonstrate social, financial and environmental performance. Organisations use Vertigo Ventures' cutting-edge reporting tools to efficiently provide the most compelling and precise analysis of both the breadth and depth of impact to their stakeholders, especially clients and funding bodies; looking beyond the number of people affected by a project, to how their quality of life is changed. As a result, our clients maximise their engagement with key stakeholders, improve their chances of securing finance and identify new income streams.

Vertigo Ventures' tools are aligned with international reporting frameworks and build on established models to be at the forefront of measuring intangibles. For example, the VV-Good Index is the first impact benchmarking tool, developed with input from leaders of global corporations and international bodies. The VV-Good Index most recently compared the impact of global pharmaceutical companies, the results of which were reported in The Guardian and the Financial Times.

Vertigo Ventures works with innovative clients including, RWE npower, the University of Oxford, and Coventry University.

SPONSOR RELATIONSHIP

Our first point of contact with VV stemmed from a meeting Osas attended while on placement at J.P. Morgan, where they delivered a company presentation on sustainability. As we had a shared interest in this field, we contacted VV whilst on academic exchange at Copenhagen Business School.

VV's original project proposal was focused around establishing correlation and causation between financial returns and social and environmental performance. We consulted academics from the University of Bath to discuss the feasibility of this scope. From this initial proposal, we negotiated a research scope that would satisfy both the client and the University of Bath. This led us to explore the research objective of:

RESEARCH OUTLINE

The purpose of this project was to effectively and accurately answer our research objective. In order to do this, our project covered a detailed literature review which addressed the most important aspects of theory and research around sustainability and socially responsible investments. The literature review allowed the creation of four research questions, which guided our efforts. Subsequently, we described how using the research strategy of triangulation would help us answer our research questions. Through data collection we gathered primary data which was subject to analysis. This resulted in a discussion of findings, its managerial implications and recommendations to VV.

CHAPTER 2 CONTEXT

CHAPTER 2: CONTEXT

Milton Friedman (1970) argued that the 'business of business is business' and that firms' only obligation, beyond legal requirements, is to maximise profits as efforts should focus on maximising shareholders' wealth. However, due to the financial crisis and recent scandals, Friedman's view is being further challenged.

The pharmaceutical industry has come under a lot of scrutiny recently regarding its sustainability performance due to a series of scandals. In 2010, Johnson & Johnson was fined USD 900 million as a result of product recalls and related plant slowdowns (Kane, 2012). In 2012, GlaxoSmithKline agreed to pay a fine of USD 3 billion to settle charges of inappropriate promotion of antidepressants and failure to report safety data about a diabetes drug (BBC, 2012; Kane, 2012). In addition, pharmaceutical companies, including Eli Lilly, GSK, Merck, Novartis and Pfizer, were negatively affected by bribery and corruption scandals in China (Jack & Waldmeir, 2013; Shobert, 2014).

As a result of negative media attention, the pharmaceutical industry has suffered significant damages to its reputation. A recent survey carried out in the UK, by the University of Cambridge and YouGov, established that the relationship between the public and the pharmaceutical industry "*suffers from a trust deficit. There is scepticism of the industry's motives and concern that its goals are misaligned with the public need*" (YouGov Cambridge Programme, 2013, para. 1). This was further supported in their findings as 74% of participants believed pharmaceutical companies prioritise financial performance over public health.

“*The first and foremost responsibility of any pharmaceutical company is to inform itself about its impact on society's various needs and goals and to be sensitive to the demands of so-called fair-minded stakeholders*” (Leisinger, 2005, p.582). Therefore, the industry should aspire to report on material environmental, social and governance factors that can affect long-term value (Kane, 2012). Non-governmental organisations have developed frameworks to aid this process, examples of which are the:

- Global Reporting Initiative (GRI), which “*promotes the use of sustainability reporting as a way for organisations to become more sustainable and contribute to sustainable development*” (GRI, 2013)
- Sustainability Accounting Standards Board (SASB) which engages in the “*creation and dissemination of sustainability accounting standards for use by publicly-listed corporations in disclosing material sustainability issues for the benefit of investors and the public*” (SASB, 2014)
- UK Sustainable Investment and Finance Association (UKSIF), a UK membership association which promotes *“responsible investment and other forms of finance that support sustainable economic development, enhance quality of life and safeguard the environment*” (UKSIF, 2014)
- US Forum for Sustainable and Responsible Investment (USSIF), a US membership association that aims to “*advance investment practices that consider environmental, social and corporate governance criteria to generate long-term competitive financial returns and positive societal impact*” (USSIF, 2014b)

- World Business Council for Sustainable Development (WBCSD), "*a CEO-led organisation of forward-thinking companies that galvanises the global business community to create a sustainable future for business, society and the environment*" (WBCSD, 2012)

In contrast to the organisations mentioned above, the PRI is an "*international network for investors... [that seek to] understand the implications of sustainability and... incorporate these issues into their investment decision-making*" (PRI, 2013a). As can be seen from Figure 2, the number of investors adopting responsible investment policies, as set by the PRI, has steadily increased.

Figure 2: PRI asset under management in trillions of U.S. dollars

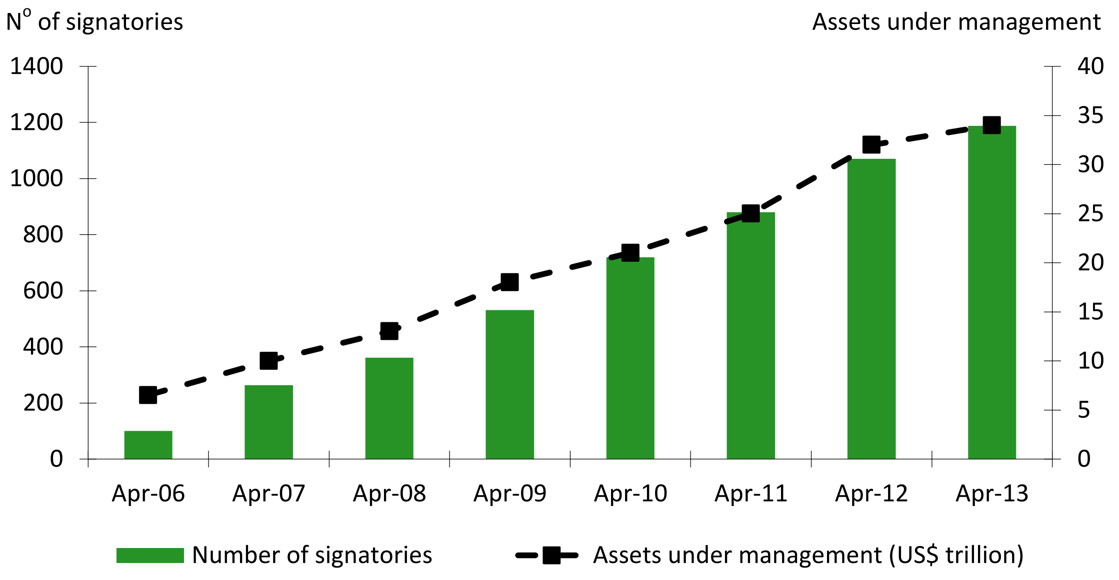


Image source: PRI, 2013a.

With investors taking an increasing interest in environmental, social and governance issues, companies need to acknowledge the importance of sustainability and report accordingly. Companies should provide a more holistic view of their performance as it is becoming an important part of investors' decision-making criteria.

PURPOSE STATEMENT

The purpose of this triangulated study was to gain an understanding of investors' decision-making process. The study was split into a macro (societal) and micro (individual) focus which was subject to further investigation. The macro-phase was a quantitative investigation which addressed the relationship between social performance and financial returns with respect to investment decisions in a student population. Information from this research helped us establish the importance of social and environmental impact performance data in investment decisions.

In-depth interviews were used for the qualitative micro-phase of the project. Findings helped establish an understanding of how investors utilise social and environmental impact performance data in investment decisions and where they obtain data. Professionals from the financial industry, and other relevant industries, were identified as preferred interviewees prior to the study. By using mixed methods to focus on the macro and micro aspects of the research question, we were better able to understand the research topic.

RESEARCH OBJECTIVE

Our research objective was to answer the following question provided by Vertigo Ventures:

"How does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry?"

To satisfy the objective of our study, our scope was limited to:

- Establishing the extent to which investors are interested in social and environmental impact performance data
- Determining the value investors place on social and environmental impact performance data
- Ascertaining how investors use social and environmental impact performance data to inform investment decisions
- Understanding where investors obtain social and environmental impact performance data from

Although we take the pharmaceutical industry into consideration, our research covers a broader spectrum and can be applied to other industries.

CHAPTER 3 LITERATURE REVIEW

CHAPTER 3: LITERATURE REVIEW

3.1 INTRODUCTION

The aim of this chapter is to identify the current status of the industry and identify gaps for future research within the boundaries of our given topic. We combine a company and investor viewpoint on social and environmental impact performance data in order to gain a holistic overview of the concept. Emerging from this chapter, we will formulate research questions that will help us to answer our research objective.

3.2 DEFINING NON-FINANCIAL INFORMATION

Corporate social responsibility (CSR) *"means something, but not always the same thing to everybody*" (Votaw, 1972, p.25).

Concepts such as 'corporate sustainability', 'corporate social performance' (CSP), 'corporate social responsibility' (CSR), 'environmental social governance' (ESG), 'sustainable development', and 'triple bottom line'; have been developed and used interchangeably when understanding the concept of working towards a more fair, ethical and transparent way of doing business. The extensive list of definitions, contradictory statements and lack of consensus has hindered the focus and applicability of these concepts (Banerjee, 2008; Henderson, 2001; Okoye, 2009; Porter & Kramer, 2006; Steurer et al., 2005; Van Beurden & Gössling, 2008; Wood & Jones, 1995).

To illustrate this, McWilliams & Siegel (2001) define CSR as "*actions that appear to further some social good, beyond the interests of the firm and that which is required by law*" (p.117). In contrast, Khoury et al. (1999 cited in Dahlsrud, 2008, p.7) explicitly state that "*CSR is the overall relationship of the corporation with all of its stakeholders… Elements of social responsibility include investment in community outreach, employee relations, creation and maintenance of employment, environmental stewardship and financial performance*".

CSR is yet to be clearly defined within literature or the corporate world. Van Marrewijk (2003) argued that concepts regarding CSR are presented with a bias towards specific interests that suit the organisation. The lack of guidance around the area has led companies to define the concept themselves through stakeholder engagement (Eccles et al., 2012). As a consequence, CSR can be perceived as a legal requirement, an act of legitimacy, or purely a philanthropic activity, depending on the firm's evaluation (Okoye, 2009; Votaw, 1972).

Many non-profit organisations and committees have been established in recent years to drive the awareness and support of sustainability on a global scale. Initiatives include but are not limited to the GRI, PRI, SASB, and WBCSD. In addition, global actors such as the United Nations and the European Commission have acknowledged the importance of standardised reporting practices with regards to CSR and are actively supporting its development.

The European Commission defined CSR as ''*a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis*" (Commission of the European Communities, 2001, p.6). According to Dahlsrud (2008), this is the most widely used definition in academia. However, all-encompassing definitions, such as this, limit the applicability within firms and fail to recognise specific characteristics for industries (Van Marrewijk, 2003). To add to the argument, Van Beurden & Gössling (2008) state that "*CSR is not a variable and therefore [is] impossible to measure*" (p. 409).

Dahlsrud (2008) identified five dimensions which are common in CSR definitions: environmental, social, economic, stakeholder and voluntariness. Since definitions in literature lack consistency, we will use the term 'non-financial information' (NFI) to explicitly focus on social and environmental impact performance data. This incorporates concepts deemed valid, suitable and reliable and includes corporate social performance, ESG, CSR, sustainability and triple bottom line.

3.3 DOING GOOD AND DOING WELL

The link between social and environmental performance and financial performance has been researched extensively. In 1976, Merton posed the question *"does the successful business try first to profit or to serve?"* (p.88). Scholars are still trying to conclude whether companies can 'do good and do well' (Margolis, Elfenbein & Walsh, 2007; Porter & Kramer, 2006). Given the traditional economic view that the purpose of a company is to maximise shareholders' wealth (Friedman, 1962 cited in Ruf et al., 2001), the concept of corporate sustainability may be seen as contradictory.

Since 1972, there have been over 167 studies linking social and financial performance (Margolis, Elfenbein & Walsh, 2007). However, the social, environmental and financial variables used in these studies have differed greatly thus generating varied results (Ruf et al., 2001). The inconsistency of measurements has limited the comparability between studies and any in-depth research within relationships (Margolis, Elfenbein & Walsh, 2007;

McWilliams and Siegel, 2001; Porter & Kramer, 2006; Van Beurden & Gössling, 2008). As such, the relationship can be argued to be negative, insignificant or positive, as there is lack of consensus within the literature.

3.3.1 NEGATIVE RELATIONSHIP

Overall, there have been very few articles post-2000, establishing a negative relationship between social and financial performance. However, Brammer, Brooks & Pavelin found, in 2006, a negative correlation between stock returns for UK listed companies and their corporate social performance. They concluded that firms with higher social performance scores achieved lower returns.

3.3.2 INSIGNIFICANT RELATIONSHIP

Griffin & Mahon (1997) reviewed research around the connection between sustainability and financial performance over a 25 years period, between 1972 and 1997. Their findings were inconclusive as the literature showed evidence to support both a negative and positive relationship. In addition, McWilliams and Siegel (2000) found an insignificant relationship between social and financial performance when important strategic attributes such as research and development (R&D) were included in measurements.

3.3.3 POSITIVE RELATIONSHIP

Extensive academic reviews have evaluated the vast amount of literature surrounding this topic and have recognised the positive relationship between NFI and financial performance. Orlitzky, Schmidt & Rynes (2003) reviewed 52 articles, concluding that social and financial performance are positively correlated and their relationship is "*bidirectional and simultaneous*" (p.470). However, only 18 articles reviewed were published post-1990, highlighting a limitation in their conclusions as they failed to capture the significant influence of the 1987 'Brundtland Report'[1] (Van Beurden & Gössling, 2008). More recently, meta-analyses conducted by Margolis, Elfenbein & Walsh (2007) and Van Beurden & Gössling (2008) have further supported Orlitzky, Schmidt & Rynes' argument, finding a positive relationship between social and financial performance.

The strength of this positive relationship is dependent on the variables being measured. Factors which play a role in establishing a significant correlation between social and financial performance have been expanded on according to different theories.

FINANCIAL INDICATORS

The financial performance of a firm can be measured by market-based indicators, such as share price, and accounting-based indicators, such as profitability. The degree to which financial factors correlate with social performance is dependent on which indicators are analysed (Griffin & Mahon, 1997). Orlitzky, Schmidt & Rynes (2003) identified that corporate responsibility has a stronger correlation to accounting-based measures over market-based. Contrary to this, Flammer (2013) found that the correlation is stronger with regards to market-based indicators, with companies experiencing considerable rises in their share price. However, Flammer (2013) also argues that this correlation is diminishing as

[1] The Brundtland Report, also known as 'Our Common Future', was published in 1987 by the World Commission on Environment and Development. It highlighted that global sustainability should be a vital factor for governments and businesses.

shareholders' reactions are weakening. Environmental responsibility is being considered to be "*a resource with decreasing marginal returns"* (p.771).

REPUTATION & PHILANTHROPIC ACTIVITIES

According to Porter & Kramer (2006) "*reputation is used by many companies to justify CSR initiatives on the grounds that they will improve a company's image, strengthen its brand, enliven morale, and even raise the value of its stock*" (p.3-4). Reputation is difficult to define but is generally seen as an intangible asset valued by all stakeholders (Larking, 2003). Negative implications can impede "*losses, which in turn may deter customers and other strategic partners*" (Flammer, 2013, p.761).

Schnietz & Epstein (2005) found that companies with strong reputations for acting sustainably can expect to be better protected against the risk of financial losses caused by exogenous issues. This supports the argument that reputation, as an indicator of social performance, has a stronger positive correlation to financial performance than other measurements (Orlitzky, Schmidt & Rynes, 2003). Factors that affect reputation, such as philanthropic activities or misdeeds have been argued to have a more significant effect than other variables (Margolis, Elfenbein & Walsh, 2007).

R&D AND INNOVATION

The close link between social performance and the innovation of a firm can be attributed to the necessity to develop knowledge and products in order to support sustainable activities (Blanco, Guillamón-Saorín & Guiral, 2013; Hull & Rothenberg, 2008; McWilliams & Siegel, 2000; Porter & Pavelin, 2008). It can also be argued that sustainable activities can indicate a firm’s level of innovation (Blanco, Guillamón-Saorín & Guiral, 2013).

Blanco, Guillamón-Saorín & Guiral (2013) identified that innovation plays a mediating role in the social and financial relationship. They suggested that innovation can influence a firm’s social performance which will ultimately have a positive effect on the financial market-based performance of the company.

Rodgers, Choy & Guiral (2013) explored the relationship between the innovation of a firm, their CSR reputation and financial performance. When controlling innovation as a variable, they concluded that the CSR reputation of a firm can enhance their financial health and market value. This is reflective in both short-term accounting measurements and long-term market measurements. Blanco, Guillamón-Saorín & Guiral (2013) argue that innovation plays a strong mediating role in the relationship between social and financial performance; as they found firms’ investments in innovation positively affect social performance.

R&D is a strong indicator of innovation, as the investment develops firm’s knowledge and the innovation of processes and products (Luo & Bhattacharya, 2009; Rodgers, Choy & Guiral, 2013). This has been acknowledged to positively affect the correlation between social and financial performance (Luo & Bhattacharya, 2006; Schnietz & Epstein, 2005).

Guiral (2012) researched the role that R&D and social performance plays on lending decisions. They found the lenders were hesitant towards R&D investments, *“because of the considerable time lag… and its questionable payoff”* and more positive when allocating funds to social performance as the investment could "*create cash flow to repay debt, or lower risk…*" (p.81).

INDUSTRY FOCUS

The validity and accuracy of research in this area can be improved by focusing on a single industry (Chand & Fraser, 2006; Griffin & Mahon, 1997; Van Beurden & Gössling, 2008). Simpson & Kohers (2002) found a positive correlation between accounting measurements and social performance measurements specific to the commercial banking industry in America. In researching the pharmaceutical industry, Turcsanyi and Sisaye (2013) found a positive correlation between companies' stock prices and product recalls. They concluded that "*when CSR is incorporated in business strategies of social and environmental performance, it complements economic profitability objectives*" (p.16). Hence, it can be argued that the relationship is more accurately represented when indicators are industry relevant.

LONG-TERM VALUE

Brammer, Millington & Cox (2004) identified that although significant responsible investments are made by companies, the value creation will be accrued in the long-run. Value creation can be associated with "*better resource competitiveness, lower transaction costs, employee quality and motivation, and customer goodwill*" (Brammer, Millington & Cox, 2004, p.29). Brammer and Millington (2008) further suggested that the relationship between social and financial performance may be curvilinear. It takes time for social performance to translate into higher financial returns and for the consistent application of a social strategy to have a positive pay-off. However, they also acknowledge that the correlation is contingent upon a variety of contextual factors which include firm's size, industry environment and the proximity between these and the particular social initiatives undertaken.

3.3.4 CONCLUSION

Mackey, Mackey & Barney (2007) argue that "*efforts to examine the 'overall' correlation between socially responsible activities and firm performance may be less interesting than examining the relationship between the supply and demand conditions under which these decisions are made and a firm's market value*" (p. 830).

Ultimately, the link between social and financial performance has been proven to have a positive relationship by many academics. However, the difficulty in quantifying social performance has led to a lack of consensus with regards to the degree of correlation. This hinders the ability to further develop research in this area. Margolis, Elfenbein & Walsh (2007) acknowledged "*just how complex the reality of the CSP-CFP relationship may be, and just how difficult it is to measure and assess that relationship*" (p.24).

3.4 COMPANIES ACTING SUSTAINABLY

There are several factors which can influence a firm's desire to act sustainably that can be attributed to the positive relationship between social and financial performance. This report will focus on three dominant areas within the literature: financial risk and reputation, asymmetric information and the influence of stakeholders.

3.4.1 FINANCIAL RISK AND REPUTATION

Reporting on ESG activities has been acknowledged to affect the reputation of a firm (Bebbington, Larrinaga & Moneva, 2008; Friedman & Miles, 2002; Porter & Kramer, 2006) and lower idiosyncratic risk (Luo & Bhattacharya, 2009). Fombrun, Gardberg & Barnett (2000) recognised the difficulty in identifying the correlation between social and financial performance. They suggested that *"activities that generate CSP do not directly impact the company's financial performance, but instead affect the bottom line via its stock of 'reputational capital'—the financial value of its intangible assets*" (p.86).

It can be argued that a firm's risk can be managed through sustainable performance (Fombrun, Gardberg & Barnett, 2000; Godfrey, 2004; Godfrey, Merrill & Hansen, 2009; Petersen & Vredenburg, 2009). Investments in social activities can help a firm "*hedge against down-side risk*" (Fombrun, Gardberg & Barnett, 2000, p.102). Godfrey, Merrill & Hansen (2009) identified the positive impact of social performance on a firm's goodwill or moral capital. It was argued that social performance does not increase financial performance, but minimises risk as it acts as a form of insurance against negative events (Godfrey, Merrill & Hansen, 2009; Petersen & Vredenburg, 2009).

Sustainable activities can positively impact the reputation of companies and their "*ability to attract resources, enhance its performance, and build competitive advantage*" (Fombrun, Gardberg & Barnett, 2000, p.85). They further add that social performance can reduce the potential costs resulting from reputational damage.

Murphy & McGrath (2013) argue that Legitimacy and Deterrence Theories influence a firm's sustainable actions by mitigating financial and reputational risks.

Deterrence Theory argues that financial implications, such as penalties and fines imposed by society, will impact firms' investments in ESG activities (Murphy & McGrath, 2013). This relates to the theory of Transaction Cost Economics, which suggests that firms satisfy stakeholders' demands in order to avoid higher costs that result from non-compliance, such as government regulations or union contracts (Ruf et al., 2001). This is supported by Renneboog, Ter Horst & Zhang (2008) who proposed the 'outperformance hypothesis'; suggesting that sustainable companies will outperform unsustainable companies. Ultimately firms make rational decisions about social performance based on a cost-benefit analysis, where penalties are seen to be a cost (Murphy & McGrath, 2013).

The Legitimacy Theory involves firms undertaking legitimation activities to gain social acceptance (Bebbington, Larrinaga & Moneva, 2008; Deegan & Gordon, 1996) which includes greenwashing (Mahoney et al., 2012). According to Laufer (2003), greenwashing is a way for firms to *"creatively manage their reputations with the public, financial community and regulators, so as to hide deviance, deflect attributions of fault, obscure the nature of the problem or allegation, reattribute blame, ensure an entity's reputation and finally, seek to appear in a leadership position*" (p.255). Luo and Bhattacharya (2009) found that the impact of ESG tends to be more significant in firms with higher use of advertising. Reservations have been displayed by academics and various stakeholders, including consumers, on the efficacy of social performance. For some firms, it becomes a publicity and reputation exercise (Boesso, Kumar & Michelon, 2013).

3.4.2 ASYMMETRIC INFORMATION

Agency Theory argues that aside from the common goals shared, ‘agents’ and their managing counterpart, ‘principals’, will try to take advantage of existing information asymmetry to defend their own interests, commonly referred to as an ‘agency cost’ (Shapiro, 2005). Friedman (1970) argued that firms who invest in CSR activities indicate an issue with asymmetric information between the firm and their stakeholders. Due to the lack of unanimity around social performance measurements, Jenson (2001) argues that as the number of stakeholders increases, so will the agency costs. Without the control from principals, managers (agents) can opportunistically engage in social performance to enhance their utility and reputation as responsible managers at the cost of potential returns to the firm or stakeholder (Brammer & Millington, 2008; Renneboog, Ter Horst & Zhang, 2008).

Asymmetric information can be minimised through the transparent disclosure of a firm’s environmental and social activities to their stakeholders. *“CSR signals a willingness to act altruistically as opposed to purely agnostically”* (Godfrey, Merrill & Hansen, 2009, p.427). Through published sustainability reports, firms are able to signal their corporate responsibility to stakeholders and society (Mahoney et al., 2012; Renneboog, Ter Horst & Zhang, 2008).

3.4.3 STAKEHOLDER THEORY

Stakeholder Theory contradicts the neo-classical economic perspective that views firms as “*closed systems with their only concern being the satisfaction of their shareholders*” (Andriof, 2002, p.11). From a Stakeholder Theory perspective, a firm’s performance can be enhanced through identifying "*groups and individuals that can affect, or are affected by, the accomplishment of the business enterprise*" (Freeman, 1984, p.25).

Freeman's (1984) definition of stakeholders could incorporate a wide range of entities. Gavare & Johansson (2010) highlighted the different stakeholders, creating primary and secondary categories. Primary stakeholders involve parties that have "*direct control of essential means of support required by the organisation*" (Gavare & Johansson, 2010, p.739). This includes customers, managers, government, suppliers and shareholders. Secondary stakeholders consist of NGOs, academics and fair-trade bodies, who are able to influence primary stakeholders if deemed necessary.

Donaldson and Preston (1995) distinguished three branches of Stakeholder Theory: descriptive, normative and instrumental. The descriptive approach to Stakeholder Theory explains a specific firm's behaviour, whereas the normative approach explains how firms should behave in relation to moral principles, irrespective of the financial impact. The instrumental approach attempts to establish the connection between stakeholder management and performance measurements (Boesso, Kumar & Michelon, 2013; Brammer & Millington, 2008). In relation to a firm's social performance, research adopting the instrumental approach is deemed most relevant to our project, as we focus on the relationship between the social and financial performance with respect to stakeholders, specifically investors.

Mitchell, Agle & Wood (1997) argued that the most important and influential stakeholders are determined according to managers' perception of their power, legitimacy and urgency. Parent & Deephouse (2007) further developed this theory, suggesting that "*power has the* *most effect on salience, followed by urgency and legitimacy*" (p.19). Satisfying key stakeholders can lead to a sustainable competitive advantage, according to Ruf et al. (2001) who adopt a Resource-Based View on Stakeholder Theory.

McWilliams & Siegel (2001) argued that firms can gain a competitive advantage by acting ethically, as they develop *"lasting, productive relationships with these stakeholders"* (p. 118). Epstein & Freedman (1994) suggested that this relationship could be strengthened through fair disclosure of social activities. Trust between management and their owners, was identified as a key element that emerged from satisfying stakeholders. *"CSR, as a risk mitigating strategy, signals competence, ethics and trustworthiness. It communicates protected earnings and growth and seeks a diversity of investors that reduces share price volatility. CSR is also believed to be a proxy for ethical, trustworthy corporate governance"* (Petersen & Vredenburg, 2009, p. 13).

Since the 1980s, Stakeholder Theory has developed to focus further on morality and ethics, and more recently corporate social performance (Steurer et al., 2005). According to Wood and Jones (1995), public policy, market and normative controls "*can be related to the nature of stakeholder expectations, experiences and evaluations of a firm's behaviour, and so, can inform a stakeholder theory of social corporate performance*" (p.216).

3.4.4 CONCLUSION

Firms' motives to act sustainably can be attributed to a number of different issues. As public awareness increases, there is more pressure for firms to signal their ethical behaviour to their stakeholders and society. Stakeholder Theory has been extensively attributed to the concept of CSR, as it is argued that satisfying key stakeholder demands can lead to competitive advantage and the development of strong relationships and reputation. Acting in a sustainable manner can also impact the long-term performance of a firm as it has been argued to lower financial risk of non-compliance and reputational risk.

3.5 INVESTORS

As identified in the previous section, investors are key stakeholders that can influence a firm's behaviour. Different types of investors value the importance of NFI in various ways, as they are known to have economic and non-economic goals (Kinder, 2005). According to Lydenberg (2007), three different types of investors exist in the industry today: universal, rational and social.

3.5.1 UNIVERSAL INVESTOR

Large companies, such as pension funds, insurance and private equity firms, have a stake in a wide variety of asset classes, industries and companies (Lydenberg, 2007). This leads to the view that their funds are universally invested in the entire economy (Hawley & Williams, 2000). These 'universal investors' focus on the economy as a whole, not just on one particular investment or sector. As such, universal investors have a vested interest in the health and long-term sustainability of the economy (Hawley & Williams, 2000; Lydenberg, 2007). They value the transparency and governance of a company and therefore show high interest in the adoption of social and environmental activities. Due to their long-term commitment, universal investors have the ability to influence and 'aggressively challenge' the management of their investee companies (Hebb, 2008).

3.5.2 RATIONAL INVESTORS

Rational investors are categorised by the Modern Portfolio Theory, and focus on optimal diversification, risk and returns, and alpha and beta ratios when making investment decisions (Brammer, Millington & Cox, 2004; Hofmann, Hoelzl & Kirchler, 2008). According to the Efficient Market Hypothesis (EMH) these investors rely on market prices as rational benchmarks to determine return on investment (Lydenberg, 2007). Chan & Milne (1999) found that analysts, bankers and accountants are more driven by client demand. According to a study carried out by BIE in 1994 (cited in Deegan & Rankin, 1997, p.566), "*issues considered moral or emotional are not seen as part of the analysts' remit, unless such issues have identifiable financial* consequences".

3.5.3 SOCIAL INVESTORS

Social investors acknowledge the social and environmental performance of a corporation within their investment decisions. A study by Iyer & Kashyap (2009) found that religiosity, environmental attitudes and materialism were some of the key drivers influencing investors' non-economic goals. However, they identified social investing efficacy to mediate the effects of these drivers. It can be argued that social investors are the middle-ground between universal and rational investors. This is because they are concerned with the impact their investments have on society and the economy. However they are not driven to favour NFI over financial returns by their size, as in the case of universal investors (Lydenberg, 2007).

Social investors, who are engaged with the impact of their investments, are said to participate in socially responsible investing. In this respect, the term ‘investor’ can comprise of private individuals; institutions such as NGOs or religious bodies; as well as investment management firms (Responsible Investor, 2014).

3.6 SOCIALLY RESPONSIBLE INVESTMENT

3.6.1 DEFINITION

The term Socially Responsible Investment (SRI) is a relatively new concept which has seen an increase in academic contributions (Benson & Humphrey, 2008). As SRI is yet to be clearly defined in existing literature (Schueth, 2003; Richardson, 2008), investors and academics use various terms to describe the same concept. These include ‘community investing’, ‘ethical investing’, ‘green investing’, ‘impact investing’, ‘mission-related investing’, ‘responsible investing’, ‘sustainable investing’, ‘socially responsible investing” and ‘values-based investing’ (Bugg-Levine & Emerson, 2011; Hofmann, Hoelzl & Kirchler, 2008; Hudson, 2005; Lewis, 2001; Renneboog, Ter Horst & Zhang, 2008; Schueth, 2003; USSIF, 2014a).

For the purposes of this report, SRI will be defined as the process of integrating NFI into financial analysis and the investment decision-making process. Investors that engage in SRI look for companies that meet certain base standards of social and environmental responsibility. They actively engage with companies to become responsible corporate citizens and dedicate a portion of assets to community economic development (Henningsen, 2002; Sandberg, 2011; Sethi, 2005; Stewart, Berard & Fruscella, 2012). This report will not cover community economic development as it falls outside the scope of the research objective.

3.6.2 APPROACHES

ESG INCORPORATION

Some socially responsible investors incorporate NFI into their investment decision process alongside traditional financial analysis (Responsible Investor, 2008). Lydenberg (2007) argued that this can be done in four different ways. ‘Full ESG Integration’ explicitly includes an assessment of ESG risks and opportunities into all processes of investment analysis and management. ‘Thematic Investing’ targets specific themes such as climate change, water pollution and human rights. ‘Community Investing’ involves the direction of capital and financial services to poor and underserved communities. Whereas ‘Screening’ utilises ESG criteria to select or exclude investment prospects.

‘Negative Screening’ is the most widely used form of ESG incorporation. It involves avoiding or divesting from companies with poor ESG practices, or from specific industries such as weaponry or gambling that are deemed a-social or unethical, also widely known as ‘sin stocks’ (Dillenburg, Greene & Erekson, 2003; Renneboog, Ter Horst & Zhang, 2008; Stewart, Berard & Fruscella, 2012). Dillenburg, Greene & Erekson (2003) argued that the growth of SRI has been partly driven by the *“divestiture of tobacco stocks from huge state pension funds”* (p. 169).

‘Positive Screening’ involves proactively investing in companies with good ESG practices using external rating criteria (IFAC, 2012; Renneboog, Ter Horst & Zhang, 2008). Negative and positive screenings are often referred to as the first and second generation of SRI screens, respectively (Renneboog, Ter Horst & Zhang, 2008). The third generation, where positive and negative screens are used simultaneously, is often termed as the 'triple bottom line' – "*due to its focus on People, Planet and Profit*" (Renneboog, Ter Horst & Zhang, 2008, p.1728). USSIF (2003) reported that 64 percent of US mutual funds, who use social screening, apply at least five different screens, whilst only 18 percent use one.

SHAREHOLDER ENGAGEMENT

This is an integral principle to SRI, where investors communicate their concerns regarding the sustainability of a company by applying pressure on management to improve issues (Aguilera et al., 2006; BSR, 2009). Shareholders use these strategies to encourage responsible business practices and improve disclosure and company policies (IFAC, 2012; Lydenberg, 2007). Hebb (2008) identified that *"it is the institutional investor coalitions that have the greatest opportunity to influence and engage corporate management"* (p.4). Lewis & Mackenzie (2000) argued that investors will not invest in a poor performing company in order to improve them, however should lobby to encourage change in a previously ethical company.

For pension funds, being socially responsible is not "*merely discretionary… [but] a necessary imperative*" (Sethi, 2005, p.99). Pension funds should therefore consider four factors when making responsible investments: fiduciary responsibility, financial returns, the nature of the investments, as well as their own increasing size and power (Sethi, 2005).

More recently, Gond & Piani (2013) identified the positive impact of the PRI on facilitating collective engagement between institutional investors.

3.6.3 TRENDS

The growing importance of incorporating NFI into decision making stands in stark contrast to the observation that firms *"only possess minimal ethical obligations above operating within the law and maximising profits"* (Friedman, 1970 cited in Hill et al., 2007, p.165). This is highlighted by the increase in American ethical mutual fund products. In 1995, there were 55 SRI funds with USD 12 billion in assets under management; in 2012, this had increased to 333 funds, with assets of USD 640.5 billion (USSIF, 2014c).

Further evidence of this trend is the increasing use of third party data providers that focus on social performance-related services, such as screening. Bloomberg states that the number of publicly traded companies listed in its database and reporting ESG indicators have increased by 75% (5,217 in 2011) since its launch in 2008; and a 50% increase in the number of ESG users (2010-11) (BSR, 2012).

This immense growth is driven by a number of different factors, including a general increase in concern regarding ethics in society, global warming, emissions trading and corporate governance (BSR, 2009; PRI, 2013b; Renneboog, Ter Horst & Zhang, 2008; USSIF, 2014a). There is also growing recognition that research and analysis of ESG factors are fundamental in assessing the value and performance of investments over the medium and longer term (PRI, 2013a). Heightened awareness of risk and risk management due to the global financial crisis and legislation, such as the Kyoto Protocol, has brought the importance of NFI to the forefront of public concern (PRI, 2013b; Renneboog, Ter Horst & Zhang, 2008). According to Cheah et al. (2011), who explored generational attitudes, SRI will continue to grow in importance as management is put under increasing pressure to incorporate NFI in their operations.

3.6.4 MOTIVES

According to Cropanzano et al. (2001) the factors that drive responsible investors' interest in SRI can be related to three fundamental human needs: 'Instrumental', the need for control; 'Relational', the need for belongingness; and 'Morality-based', the desire for a meaningful existence.

<u>INSTRUMENTAL MOTIVES</u>

Research shows that instrumental motives, stemming from self-interest, are the strongest drivers of interest in SRI (Hofmann, Hoelzl & Kirchler, 2008). Investors seek long-term financial outperformance, as there is growing evidence of a positive correlation between social and financial performance (Aguilera et al., 2006; Brønn & Vidaver-Cohen, 2009; BSR, 2009; Ingalls & Lehman, 2014). Investors' instrumental motives relate to their need to control their investments in terms of valuation, risk and quality management, and their resilience to future challenges (Aguilera et al., 2006). A survey conducted by Novethic (2013) found that *"long-term risk management is set to become asset owners' principal motive to integrate ESG criteria into asset management"* (p.5). Their interest in SRI can be linked to the potential competitive advantage achieved through positive sustainability practices (Aguilera et al., 2006).

RELATIONAL MOTIVES

SRI can be driven by relational motives such as client demand, reputation and greenwashing. Relational motives are defined as a concern for status and rank within particular groups (Cropanzano et al., 2001). Beal, Goyen & Phillips (2005) advocate that SRI activity is not wholly dependent on the expectation of financial returns, but also on the emotional satisfaction these investments yield. They compared ethical and traditional investment practices and found that "*in addition to financial returns, the [ethical] investment yields a flow of pleasure and even social status*" (p.17).

MORALITY-BASED MOTIVES

Morality-based motives are driven by the awareness of corporate responsibility and fiduciary duties managers have to their various stakeholders (Brønn & Vidaver-Cohen, 2009; Richardson, 2008). For these investors, creating positive social or environmental impact is an integral part of corporate mission statements, as well as personal values and goals. In economic terms, this subset of investors seeks to minimise negative externalities and enhance positive externalities (Sethi, 2005). This relates to the ongoing debate as to whether it is possible to 'do good and do well'. Jansson & Biel (2010) state that *"most ethical investors have a mixed portfolio where ethical or responsible investment is part of a broader investment strategy that balances risk and return"* (p.136). In essence, responsible investors aim for strong financial performance, but also believe that these investments should contribute to advancements in social and environmental practices (Haigh & Hazelton, 2004).

3.6.5 CHALLENGES

Although there is a rising awareness and adoption of sustainable practices, challenges exist that hinder the ability to integrate NFI into mainstream investment.

EFFICIENT MARKET HYPOTHESIS (EMH)

According to the EMH Theory, 'semi-strong form efficiency' suggests that stock prices are fully reflective of all public information available in security markets (Malkiel & Fama, 1970). This traditional, rigid view of rational investors fails to include a sustainable dimension. This is due to the difficulty in quantifying non-financial factors and determining the extent to which NFI is reflected in share price (Juravle & Lewis, 2008). However, the theory has been criticised as it ignores the role of cognitive biases of individuals, and assumes investors make rational decisions (Malkiel, 2003).

FIDUCIARY DUTIES

There is a divergence of opinion with respect to the relationship between SRI and fiduciary duties. Pension funds, a strong advocate of SRI, believe that fiduciary duties include making responsible investments (Sethi, 2005). Hawley & Williams (2000) state that "*fiduciary institutions are in a unique position to develop and pursue policies of virtuous efficiency, minimising negative externalities and encouraging positive outcomes*" (p.239).

However, critics argue that focusing on ESG criteria when making investment decisions is an irrational form of investing (Beal, Goyen & Phillips; 2005). According to Friedman (1962 cited in Ruf et al., 2001, p.143), "*corporate expenditures on social causes are a violation of* *management's responsibility to shareholders, to the extent that the expenditures do not lead to higher shareholder wealth"*. Considering ESG factors violates managers' fiduciary duties as it weakens incentives to pursue high risk-adjusted returns at the expense of maximising shareholder wealth (Jansson & Biel, 2010; Juravle & Lewis, 2008; Renneboog, Ter Horst & Zhang, 2008; Sethi, 2005).

According to Agency Theory, it could be argued that fiduciary duties should be determined by the individual investors. This is also supported by Ruf et al. (2001) in their investigation of Stakeholder Theory. "*Top management (agents) is duty-bound to allocate resources to CSR-related agendas consistent with views held by SRIs (principals). So the uptake of SRI and its effect on fiduciary duty should be determined by principal agenda*" (Cheah et al., 2011, p.318). Therefore, if shareholders desire company management to act sustainably, it becomes a fiduciary duty, and vice versa.

<u>SHORT-TERMISM</u>

Krehmeyer et al. (2006) defined short-termism as "*the excessive focus of some corporate leaders, investors, and analysts on short-term, quarterly earnings and a lack of attention to the strategy, fundamentals and conventional approaches to long-term value creation*" (p.3).

SRI is based on long-term value creation and requires planning and stakeholder engagement (IFAC, 2012; Solomon & Solomon, 2006). This is in contradiction to the traditional passive view of institutional investors who focus on short-term gains (Dillenburg, Greene & Erekson, 2003). Therefore, rational investors lack the motivation and incentive to pursue SRI (Jansson & Biel, 2010; Juravle & Lewis, 2008).

HERD BEHAVIOUR

When managers fail to utilise private information and instead follow the investment decisions of others, it is known as 'herd behaviour' (Juravle & Lewis, 2008; Nofsinger & Sias, 1999; Scharfstein & Stein, 1990). Scharfstein & Stein (1990) suggests that herd behaviour is a consequence of "*rational attempts by managers to enhance their reputations as decision makers*" (p.478).

Herding can also result from 'institutional isomorphism'. DiMaggio & Powell (1983) advocate three mechanisms that can lead to herd behaviour. These are coercive, political influence; mimetic, the response to uncertainty; and normative, which is associated with professionalisation. Within the financial industry, uncertainty and competition can cause an organisation to model itself after a perceived successful organisation within the industry. Therefore, herd behaviour can act as both a driver and barrier to incorporating NFI into the investment decision process.

DISCLOSURE AND REGULATION

Disclosure provides data about the firm's impact on society and the environment, reflecting the firm's relationship with its stakeholders (Boesso, Kumar & Michelon, 2013; Epstein & Freedman, 1994). "*Nowadays, stakeholders are demanding the 'giving of an ethical, social or environmental account' as well as a financial account*" (Adams, 2004, p.732). This can be a voluntary exercise, but for some industries it is mandatory. Székely and Knirsch (2005) argue that "*reporting on and communicating sustainability investments and achievements helps demonstrate transparency and seriousness of intent*" (p.631). However, the lack of universal standards of reporting makes it "*difficult for companies to know exactly how to measure and report on some dimension of sustainability performance*" (Eccles et al., 2012, p.65).

The veracity of sustainability reports is often questionable due to lack of consistent reporting standards and independent external monitoring that is present in traditional financial analysis (Eccles et al., 2012; Sethi, 2005). This presents a challenge for investors as it is "*difficult to obtain data on broad areas of corporate social and environmental performance*" (Sethi, 2005, p.107).

However, measures are being taken to improve and increase social and environmental reporting standards universally. The GRI created the 'G4 Guideline' for company reporting. This framework "*enables greater organisational transparency and accountability*" by providing a *"reporting system that provides metrics and methods for measuring and reporting sustainability-related impacts and performance*" (GRI, 2013).

For signatories of the UN-supported PRI, reporting on SRI is a mandatory requirement. The PRI states that *"…as institutional investors, we have a duty to act in the best long-term interests of our beneficiaries. In this fiduciary role, we believe that environmental, social and corporate governance (ESG) issues can affect the performance of investment portfolios*" (PRI, 2013b, p.2). As of April 2013, the PRI had 1200 signatories, including both public and private pension funds and investment managers with assets exceeding USD 35 trillion (PRI, 2013a).

Gurthie and Parker (1990 cited in Epstein & Freedman, 1994) advocate two models which encourage companies' disclosure practices. The 'utility model' states that information is only supplied in so far as corporate stakeholders demand it; whilst the 'political economy approach' states that companies disclose only to "*serve corporate political or ideological goals*" (p.95). With regards to the 'political economy approach', there is a risk of greenwashing, making sustainability reporting "*little more than public relation exercises*" (Chan & Milne, 1999, p.265).

To reduce the risk of greenwashing and increase the applicability of disclosure, it has been argued that sustainability reporting should be industry specific. In 1994, Epstein and Freedman recognised that it is imperative to look at social disclosures separately as their importance is not homogenous. Eccles et al. (2012) and BSR (2009) expand on this view by stating that industry-specific materiality should be measured according to which ESG factors most impact a company's ability to generate value.

Efforts are being made to create universal standards of reporting to improve comparability and accuracy. However, evidence shows that industry-specific measures would be more applicable as ESG factors have varying levels of relevance and impact on different industries. "*While not a panacea... developing sector-specific guidelines on what sustainability issues are material to [each] sector and the Key Performance Indicators (KPIs) for reporting on them would significantly improve the ability of companies to report on their ESG performance"* (Eccles et al., 2012, p.70).

3.6.6 CONCLUSION

The existing literature has indicated the increasing interest in SRI as funds and third party data providers have grown over recent years. Screening has been identified as a main method of ESG adoption. However, as the industry develops, stakeholder engagement has become more prevalent. The drivers for SRI adoption can mainly be attributed to pressure from client demand; although self-interest can also play a key role (BSR, 2009). In order for the industry to develop, challenges regarding investors’ behaviour, such as short-termism and herd behaviour, need to be addressed. Regulation can encourage the progress of this development, as well as the standardisation of disclosure within industries.

CHAPTER 4 RESEARCH QUESTIONS

CHAPTER 4: RESEARCH QUESTIONS

As our aim was to identify ***"how does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry"*** the literature review was structured according to appropriate subtopics. This broadened our understanding of the area and helped us identify gaps within existing literature, which we aimed to cover through our research.

Overall, we found that current literature focuses on the company's perspective of social performance and its relationship to financial performance. As suggested by Mackey, Mackey & Barney (2007), we focus on the driving forces behind the supply and demand of NFI by specifically focusing on investors. Investors are integral to the success of a company, so it is important to understand their perspective regarding corporate sustainability.

4.1 DOING GOOD AND DOING WELL

In the literature review we found numerous studies that indicate a positive correlation between factors of social and financial performance. For the majority of these studies, quantitative methods were used to prove a positive relationship between the two variables. However, indicators varied to the extent that the strength of the correlation remains unknown. Research can be traced back to the 1970s, but results are limited in applicability to our research as the financial industry has developed.

In recent years, research in this area has grown, but the focus has been limited to companies. Therefore, we focused on investors' perspectives of this concept. This contributes to the literature by providing detailed qualitative data. We sought to understand to what extent investors are influenced by the growing importance of NFI and its role within investment decisions. This led us to our first research question:

RQ 1: ***To what extent are investors interested in non-financial information?***

4.2 COMPANIES ACTING SUSTAINABLY

Companies incorporate sustainable practices to minimise the risk of damaging reputation as well as the financial implications caused by regulation. Unfortunately, the risk of greenwashing exists as companies attempt to improve goodwill. The literature identifies two main obstacles for companies in this endeavour.

Agency and Stakeholder Theories both advocate that companies undertake sustainable activities to satisfy demand from their shareholders. This could be to minimise agency costs or retain current shareholders. Understanding that there is investor demand for NFI, it is unknown to what extent it is considered valuable investment information. This is reflected in our second research question:

RQ 2: ***What value does non-financial information provide investors with?***

4.3 INVESTORS

Investors can be categorised as universal, rational or social, according to their economic and non-economic goals. Pension funds, hedge funds, investment banks and private equity funds all value NFI, depending on their agenda and exposure to market demands. The current literature fails to differentiate between the demands for NFI from various types of investors.

The literature suggests that universal investors are adopting more responsible approaches to investing, similar to practices found in SRI. Following the economic recession, public scrutiny has increased and NFI has become more important to investors. We aimed to understand how far this has developed and whether the categorisation of investors still holds as practices become increasingly merged. We aimed to answer this through the first research question:

RQ 1: ***To what extent are investors interested in non-financial information?***

4.4 SOCIALLY RESPONSIBLE INVESTMENT

SRI is a relatively new concept in the financial industry involving the integration of NFI into investment decision making. Our trend analysis found that there is an increase in SRI practices as well as data availability. This could be due to investors placing more importance on the impact of NFI. However, in order for SRI to advance, the industry needs to overcome some difficult challenges. We found that it is essential for reporting on NFI to be improved; investors need to shift focus from a short to long-term perspective and fiduciary duties should accommodate the growing importance of NFI.

SRI-related literature takes a high-level view of trends within the industry, with particular focus on social investors. To help answer our research objective, we investigated the utilisation of NFI in investment decisions by universal investors at a more granular level. The third research question highlights the application of NFI in decision making:

RQ 3: ***How do investors use non-financial information to make investment decisions?***

When comparing the literature review to the scope of our research objective, we identified an area that remains relatively under-researched. Little information was available to build an understanding of where investors obtain companies' NFI. This aspect is relevant to our research objective and contributes to the overall understanding of the research topic. It is therefore necessary to investigate this area, as it forms the scope of our fourth research question:

RQ 4: ***Where do investors gather non-financial information from?***

4.5 OVERVIEW OF RESEARCH QUESTIONS

Table 1 illustrates the process we followed to identify our research questions and the subsequent method of collecting primary data.

	Define NFI	Doing good and doing well	Companies acting sustainable	Investors	Socially Responsible Investment
Literature Review		• Negative • Insignificant • Positive	• Asymmetric Info • Risk and Reputation • Stakeholder Theory	• Social • Rational • Universal	• Motives • Trends • Approaches • Challenges
Adopting an investor perspective					
Research Question		**1.** Extent of interest in NFI?	**2.** How much do investors value NFI?	**1.** Extent of interest in NFI?	**3.** How do they use NFI? **4.** Source of NFI?
Research Method		• Students • Investors	• Students • Investors	• Students • Investors	• Investors

Table 1: Structure of research questions

CHAPTER 5 METHODOLOGY

CHAPTER 5: METHODOLOGY

5.1 INTRODUCTION

This section aims to justify our rationale for how we answer our research questions. We identified triangulation to be the most appropriate research approach as the simultaneous utilisation of quantitative and qualitative research methods are viewed as complementary rather than competitive (Jick, 1979).

5.2 RESEARCH PHILOSOPHY

Creswell (2009) notes that research philosophy needs to be identified because it can "*influence the practice of research*" (p.5). Research philosophy guides how interviewers interpret observations, question their surroundings and draw conclusions (Babbage & Ronan, 2000). Without a distinct philosophical position, researchers are at risk of conducting inappropriate research, which can diminish its validity and authority (Holden & Lynch, 2004).

Our proposed research philosophy is interpretivism which "*advocates that it is necessary for the researcher to understand differences between humans in our roles as social actors. This emphasises the differences between conducting research among people rather than objects*" (Saunders, Lewis & Thornhill, 2009, p.116).

We followed an interpretivist philosophy because it focuses on human's ability to assign value and meaning to the world around them. Interpretivists believe that "*research should* *be the interpretations or meanings that people bring to the social interactions that make up society*" (Chapman & McNeill, 2005, p.183). We agree with this philosophy as we see the world as a socially constructed environment which is constantly under subjective scrutiny. We acknowledge that people are open to change and that multiple views of reality exist (Saunders, Lewis & Thornhill, 2009). Our project does not aim to challenge subjective views but rather map people's attitudes and beliefs according to the research questions.

5.3 RESEARCH APPROACH

Our project has taken a deductive research approach by using quantitative and qualitative research methods to test research questions. The deductive approach "*involves the development of a theory that is subject to a rigorous test*" (Saunders, Lewis & Thornhill, 2000, p.87). This research approach is highly structured, which makes replication plausible and adds rigor to our project.

5.4 TIME HORIZON

A cross-sectional study is defined by Saunders, Lewis & Thornhill (2009), as conducting research in present situations to gain a 'snapshot' of the research area at the current time. By conducting a cross-sectional study, we were able to explore the importance of a range of variables on our research questions. This differs from a longitudinal study which involves monitoring the same variables over an extended period of time (Ghauri & Grønhaug, 2010). A longitudinal study could add a different perspective; however, due to the finite timescale and the nature of the project, we decided to conduct cross-sectional research.

5.5 RESEARCH DESIGN

5.5.1 RESEARCH DESIGN FRAMEWORK

As "*insights may be gained gradually, and may also be modified and/or changed over time*" (Ghauri & Grønhaug, 2010, p.29), we found the literature review to have significantly shaped and guided our approach to research design. The continuous review of literature led us to constantly develop the research questions and scrutinise our survey and interview questions. This process is outlined in Figure 3.

Figure 3: The research process

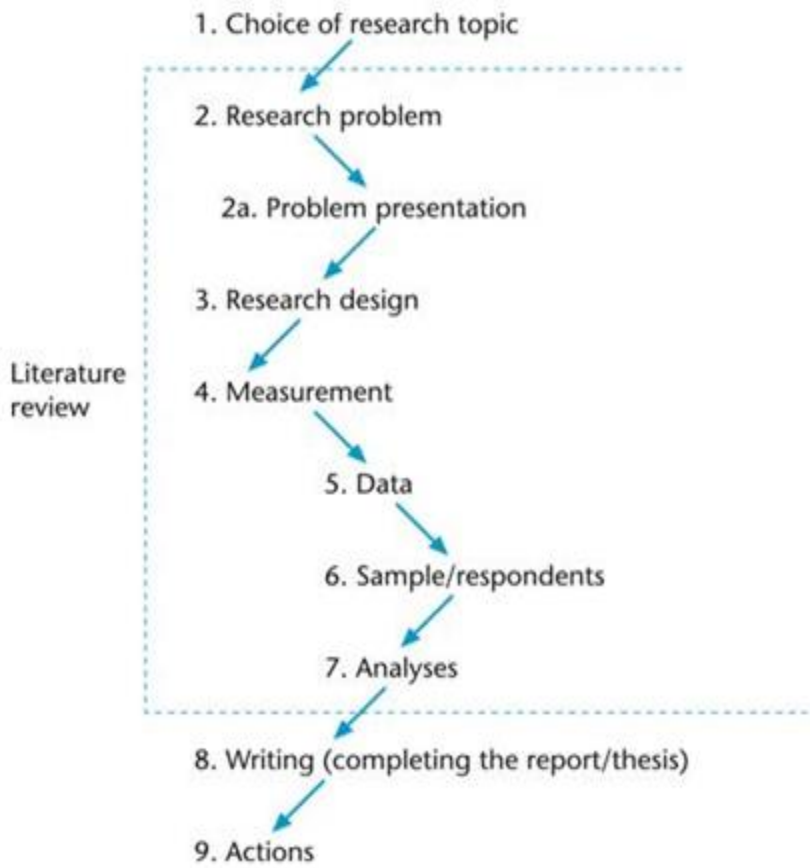


Image source: Ghauri & Grønhaug, 2010, p 30

However, it should be noted that *“in reality, the [research] process is not so orderly and sequential, and is rather messy”* (Ghauri & Grønhaug, 2010, p.29). The model lacks feedback loops, as our research design changed with the development of the literature review.

5.5.2 RESEARCH PURPOSE

By analysing existing literature, gaps in the scope of our research topic were discovered. Since our project followed a deductive approach, adopting a descriptive research method seemed logical as we aimed to accurately record human behaviour and beliefs. According to Hair et al. (2011), the goal of adopting descriptive research is to accurately describe people and scenarios.

5.6 RESEARCH STRATEGY

5.6.1 CHOOSING THE RESEARCH STRATEGY

To ensure a systematic approach, the scope of our research was divided into a macro and micro-level in order to understand the topic (Table 2).

Research Focus	Research Question
Macro	***1.*** *To what extent are investors interested in non-financial information?* ***2.*** *What value does non-financial information provide investors with?*
Micro	***3.*** *How do investors use non-financial information to make investment decisions?* ***4.*** *Where do investors gather non-financial information from?*

Table 2: Research focus

The macro-level analysis focused on understanding societal attitudes and beliefs towards the use of NFI in investment decisions. Whereas the micro-level specifically looked at what value investors assign to NFI and where they obtain data.

In order to address societal attitudes and answer research questions 1 and 2, we aimed to conduct a focus group. However, due to limitations, such as the timeframe and small sample, it was decided that a survey would be more suitable. Quantitative research methods, such as surveys, can be advantageous as "*the reduction to a parsimonious set of variables, tightly controlled through design or statistical analysis provides measures or observations for testing a theory*" (Creswell, 2009, p.145).

To capture the level of detail required to answer research questions 3 and 4, it was appropriate to conduct in-depth interviews with a select group of individuals. By using semi-structured interviews we were able to ask follow-up questions to ensure collection of rich qualitative data.

Combining qualitative and quantitative research methods provided rigor and formed the basis of our triangulation strategy. "*The use of both quantitative and qualitative strategies in the same study is a viable option to obtain complementary findings and to strengthen research results"* (Thurmond, 2001, p.257).

5.6.2 TRIANGULATION

Triangulation answers the same research question by combining different research methods (Denzin, 1978). This approach can include *"increasing confidence in research data, creating* *innovative ways of understanding a phenomenon, revealing unique findings, challenging or integrating theories, and providing a clearer understanding of the problem"* (Thurmond, 2001, p.254).

Triangulation can occur across multiple stages of the research process. According to Thurmond (2001), data source triangulation can vary with respect to time, space and person. We accomplished triangulation by ensuring our interview subjects had different professional backgrounds.

Investigator triangulation is defined as "*using more than one observer, interviewer, coder or data analyst in the study*" (Thurmond, 2001, p.254). This was achieved by having at least two interviewers, as well as involving all team members in the analysis of the results.

Though disagreements exist regarding the scope of methodological triangulation, it is repeatedly referred to in literature as a mixed method approach (Thurmond, 2001). By using quantitative and qualitative research methods, our strategy fulfilled the general scope of methodological triangulation.

When two or more methods are used to analyse research data, it is known as data-analysis triangulation (Thurmond, 2001). By applying binomial and multiple linear regression analysis to our results, we were able to achieve triangulation and validate our findings.

5.7 RESEARCH METHODS

There is a vast amount of qualitative and quantitative research methods available to researchers. Quantitative data is normally collected through surveys where answers are close-ended and predetermined (Karlsson, 2009). Qualitative data can be collected through a variety of ways, such as observations, interviews, documents and audio-visual materials (Creswell, 2009).

5.7.1 STUDENT SURVEY

A survey was deemed the most suitable data collection method due to time constraints, a limited budget, as well as our ability to analyse the variables. The aim was to measure societal attitudes towards the use of NFI in investment decision making.

The survey was aimed at a variety of students from the University of Bath and contained eight questions which included demographic, open-ended and closed-ended formats. The survey variables, social and financial performance, were defined at the beginning of the survey to limit misinterpretation from participants. This is particularly important as Forza (2009, p.122) states that "*if a question is not understood or is interpreted differently by respondents, the researcher will get unreliable responses to the question, and these responses will be biased*." Information presented to the respondents was based on the work of van der Laan Smith et al. (2010), who used a hypothetical scenario in their survey research. Prior to data collection, a pilot survey was completed by 10 students, the team and our academic advisor. The final survey was adjusted according to the feedback received.

5.7.2 STUDENT SURVEY: DATA COLLECTION

The survey software Survey Monkey was used to collect data. A link to the survey was distributed online by our academic advisor and the team between 15 January and 9 February 2014. Upon closing the survey, our sample consisted of 279 respondents, in line with standards set by University Protocol (University of Bath, 2009). The variables we tested and their relevance to our research questions can be found in Table 3.

Variable Name	Research Question	Item on Survey (Appendix VII)
Dependent variable: Allocation of investment	2: What value does NFI provide investors with?	• Question 5: Allocation of investment • Question 6: Ranking of investment
Independent variable: Social performance	1: To what extent are investors interested in NFI?	• Question 7: Justification of investment • Question 8: Justification of chance to invest in only one company
Independent variable: Financial return	1: To what extent are investors interested in NFI?	• Question 7: Justification of investment • Question 8: Justification of chance to invest in only one company

Table 3: Quantitative research approach

5.7.3 INTERVIEW

In-depth semi-structured interviews allowed us to collect extensive data, which could not be captured using other methods. Participants' profession and experience ranged from fund managers to academics. By consulting a variety of experts, we gained a holistic view of the research topic.

Open-ended questions allowed the interview to be tailored to the participant's area of expertise, enabling us to capitalise on their knowledge. Although there were elements of flexibility within our approach, consistency was achieved by ensuring the conversation always remained relevant to the scope of our research. The questions were piloted by using a survey. The reason for this was two-fold. Firstly, we wanted to ensure that the interview questions were relevant. Secondly, we wanted to test the response rate for follow-up interviews which influenced our approach to secure participants.

5.7.4. INTERVIEW: DATA COLLECTION

Interviews were secured through directly emailing companies of interest, as well as through the networks of Vertigo Ventures, our academic advisor and the University of Bath Alumni. Additionally, some interviews were secured through recommendations from participants. Consequently, the participants formed a convenience sample, which could have affected the level of bias. However, due to the nature of the project, other types of sampling would not fulfil our participation criteria. In total, we conducted twelve interviews between 5 and 27 February 2014 via phone or face-to-face meetings, depending on the constraints of time and location. Every interview was recorded by phone and dictaphone to enable cross-referencing, then transcribed by members of the team.

5.7.5 INTERPRETING THE DATA

In order to interpret our primary data, statistical analysis was applied to the quantitative findings and manual coding was used to analyse the qualitative records.

5.8 LIMITATIONS

This section will outline the potential limitations of our research and explain how we overcame or minimised their adverse effects.

5.8.1 RELIABILITY AND VALIDITY OF TRIANGULATION

Reliability is the consistency of techniques used for data collection which yield accurate, replicable results (Hair et al., 2011). We increased reliability through the use of triangulation; the combination of quantitative and qualitative research methods. However, since our project was cross-sectional and focused on a specific period of time, replication is threatened.

"*Validity is the extent to which a construct measures what it is supposed to measure*" (Hair et al. 2011, p.238). This was achieved by conducting primary research which met the scope of the research objective.

5.8.2 BIAS

Upon reflection, we identified the biases that could have affected our research. Table 4 illustrates how we proceeded to minimise their impact.

Bias	Risk	Resolution
Participant bias	Interpersonal barriers may have impacted disclosure	Provided participants with the option of anonymity; Transparent in our intention which created trust
Sample bias: Interviews	Small sample of participants	Interviewees worked in different companies which ensured a variety of viewpoints
Sample bias: Survey	Convenience sample, student population	Reached over 250 participants from different university departments which ensured reliable statistical analysis
Framing bias	Wording of questions could be leading	Primarily used open-ended questions to allow participants to express their views
Observer bias	Observers' view could influence the interview process	Interviewer triangulation limited personal bias and improved credibility
Measurement bias	Inaccurately measuring outcomes	Pilot testing both research methods ensured validity
Design bias	In triangulation, inaccuracy of one method might not reduce the inaccuracy of the other	Chose complementary research methods to support our macro/micro view
Analysis bias	In triangulation the use of two research methods can lead researchers to emphasise the findings of one method over another	Applied two research questions to each research method

Table 4: Research bias

5.8.3 ETHICS

Ethical considerations often arise in social research particularly in relation to the collection and analysis of data (Bryman, 2012). Ethical issues cover a wide scope and can deal with "*communicating benefits and risks, protection of identity, privacy [and] obtaining informed consent*" (Karlsson, 2009, p.27). As ethical integrity is essential, we evaluated Bryman and Bell (2007) '10 Principles of Research Ethics' in relation to our project. Only two criteria were identified as relevant: consent from participants and full anonymity. We overcame these issues in the collection of both quantitative and qualitative data by inviting participants to be involved and guaranteeing them anonymity.

CHAPTER 6 QUANTITATIVE FINDINGS & ANALYSIS

CHAPTER 6: QUANTITATIVE FINDINGS & ANALYSIS

The aim of this chapter is to address societal attitudes towards the use of NFI in investment decisions. The student survey assisted in answering research question 1 and 2 in conjunction with the findings from the interviews.

6.1 RESULTS

Our survey consisted of eight questions, which will be analysed in detail. All questions, except question 7, were compulsory.

6.1.1 DEMOGRAPHICS

The purpose of questions 1 to 4 was to collate demographic data. Overall, we reached a sample of 279 respondents out of which 124 completed the survey, giving a response rate of 44.4%. The sample consisted of 58.3% female and 41.7% male respondents. The level of education held by participants was 76.3% undergraduates, 14.4% professionals, 6.5% postgraduates and 2.9% PhD students.

Age distribution of participants is displayed in Table 5.

	Response Percent
18-21	56.5%
22-25	30.9%
26+	12.6%

Table 5: Age

Furthermore, respondents were asked to disclose their nationality by country. Responses were grouped into continents, except for the United Kingdom. This is illustrated in Table 6.

Regions	Response Percent
Africa	3.6%
Asia	10.8%
Europe (ex. UK)	27.7%
UK	53.2%
North America	1.8%
South America	1.8%
Oceania	1.1%

Table 6: Nationality

The terms used in the survey were defined prior to relevant questions. We defined financial returns as "*a company's average share price appreciation over the last three years*". This was given as a percentage, based on the expected rate of return. Social performance was defined as "*an average score from the last three years, based on various indicators such as environmental compliance, labour practices and product responsibility*". This was measured on a scale from 0 to 10; representing 'no exercise' to 'full exercise', respectively.

The definition of each term was presented next to a table of eight hypothetical pharmaceutical companies, with their respective contrived financial return and social performance scores (Table 7). These variables were constructed according to a study carried out by van der Laan Smith et al. (2010), where findings were based on hypothetical parameters. The values attributed to financial returns and social performance scores are artificial, but included a reasonable spectrum of possible settings.

Average financial return was 12.5% and the average social performance score was 5.1.

	Social Performance	Financial Returns
Company 1	9	13%
Company 2	9	5%
Company 3	8	8%
Company 4	6	15%
Company 5	5	10%
Company 6	3	12%
Company 7	1	20%
Company 8	0	17%

Table 7: Investment data table

This table was used in the survey to answer questions 5 to 8.

6.1.2 ALLOCATION OF INVESTMENT

In question 5, respondents were requested to allocate £100 across the eight companies in the portfolio shown in Table 7, using a ratio scale. Investment decisions were to be based on a 5-year strategy. Participants were informed that investments could be distributed freely between the eight companies and the allocation of funds could range from £0 and £100. However, the whole allowance had to be invested.

Average funds allocated to each company are displayed in Table 8. The sum of the average investments in the table does not equal 100, which will be explained in section 6.2.

	Social Performance	Financial Returns	Average Investments
Company 1	9	13%	**35.97**
Company 2	9	5%	**4.55**
Company 3	8	8%	**6.75**
Company 4	6	15%	**22.62**
Company 5	5	10%	**4.76**
Company 6	3	12%	**4.46**
Company 7	1	20%	**24.13**
Company 8	0	17%	**9.01**

Table 8: Average investment allocation

It is evident from Table 8 that Companies 1, 4 and 7 attracted the highest levels of investment from participants. This could be due to the above-average financial *and* social performance of Companies 1 and 4. The popularity of Company 7 could be attributed to having the highest financial return in the portfolio, despite scoring below average on social performance.

6.1.3 RANKING OF INVESTMENT

In question 6, respondents were asked to rank the eight companies in terms of preference on a scale of 1 to 8; 1 being the most preferred and 8 the least preferred investment. This was measured using an ordinal scale. Results were produced as average ranking and majority ranking. Average ranking displays the mean, while majority ranking displays the mode of responses, as shown in Table 9.

	Social Performance	Financial Returns	Average Ranking	Majority Ranking
Company 1	9	13%	**2**	**1**
Company 2	9	5%	**6**	**8**
Company 3	8	8%	**5**	**7**
Company 4	6	15%	**2**	**2**
Company 5	5	10%	**5**	**6**
Company 6	3	12%	**6**	**5 / 6 ***
Company 7	1	20%	**4**	**1 / 7 ***
Company 8	0	17%	**6**	**8**

** The majority rankings of Companies 6 and 7 are split between two rankings*

Table 9: Company rankings

Similar to investment allocation, Companies 1, 4 and 7 were the most preferred as they had the highest average rankings. As expected, Companies 1 and 4 had the highest majority rankings.

Interestingly, the majority ranking of Company 7 was split as the same number of people ranked it as their best and second-worst investment choice. This could indicate a divergence of preference as Company 7 has a below-average social performance score but yields the highest financial returns.

6.1.4 REASON BEHIND INVESTMENT

In question 7, respondents were asked to explain the rationale behind their investment decision in question 5. The number of respondents decreased from 124 to 105, as this question was optional. Answers were quantified and categorised according to four recurring themes: risk avoidance, achieving a balance between financial and social performance, moral concern and maximising financial performance. Non-applicable answers were categorised as other.

Table 10 shows that for the majority of respondents, it was important to strike a balance between financial returns and social performance when allocating their funds in the portfolio.

	Risk	Balance	Moral	Financial	Other
Total Responses	14	41	14	29	7
%	13%	39%	13%	28%	7%

Table 10: Investment motives for average investment

6.1.5 PREFERRED INVESTMENT

In question 8, respondents were asked to invest all their funds in a single company with justification for their choice. Participants' responses were quantified and are displayed in Table 11. Unspecified responses were categorised as other.

	Social Performance	Financial Returns	Respondents
Company 1	9	13%	53
Company 2	9	5%	1
Company 3	8	8%	0
Company 4	6	15%	31
Company 5	5	10%	2
Company 6	3	12%	1
Company 7	1	20%	22
Company 8	0	17%	2
Other	-	-	12

Table 11: Sole investment results

Companies 1, 4 and 7 attracted the highest number of respondents. However, participants' preferences towards Company 7 seem to have decreased compared to previous questions.

Answers to question 8 were also categorised according to themes. Interestingly, we found the same themes recurring from question 7: risk avoidance, achieving a balance between financial and social performance, moral concern and maximising financial performance. We classified non-applicable answers as unspecified.

Our results were consistent with question 7, as they indicated that balance between social and financial performance was the most important motive as shown in Table 12.

	Risk	Balance	Moral	Financial	Unspecified	Total
Company 1	10	29	4	1	9	**53**
Company 2	1	0	0	0	0	**1**
Company 3	0	0	0	0	0	**0**
Company 4	6	19	0	0	6	**31**
Company 5	0	2	0	0	0	**2**
Company 6	0	1	0	0	0	**1**
Company 7	0	1	0	18	3	**22**
Company 8	0	0	0	0	2	**2**
Unspecified	1	2	1	0	8*	**12**
Total	**18**	**54**	**5**	**19**	**28***	**124**
	15%	**44%**	**4%**	**15%**	**23%***	

** Includes answers that were non-applicable to the question asked*

Table 12: Sole investment analysis

6.2 STATISTICAL ANALYSIS

Statistical analysis was performed in two stages: binomial distribution and multiple linear regression.

6.2.1 BINOMIAL DISTRIBUTION

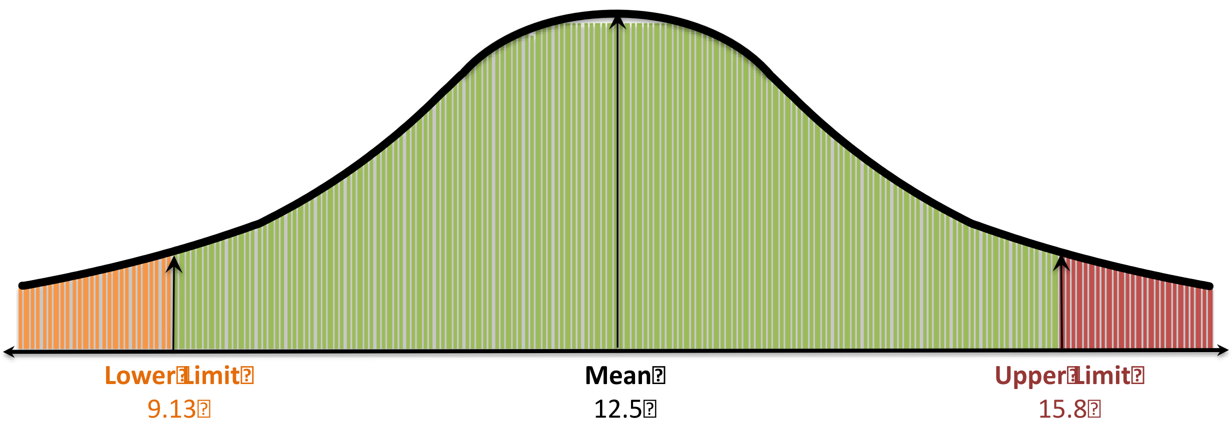
Binomial distribution was conducted to test the underlying element of preference for each variable: financial returns and social performance. The parameters are displayed in Table 13.

Symbol		Value
n	*Trials*	100
N	*Observations*	8
p	*Probability*	0.125
µ	*Mean*	12.5
σ	*Standard Deviation*	3.307
T	*Significance Level*	0.05

Table 13: Binomial distribution parameters

The parameters were used to define the upper and lower limit of the binomial distribution illustrated in Figure 4.

Figure 4: Binomial distribution graph



We proceeded to compare the binomial distribution to the average investments calculated in question 5. This looked at the investment pattern and whether it was statistically abnormal. If proven, this would indicate an underlying element of preference between financial returns and social performance.

	Financial Returns	Social Performance	Average Investments	Abnormality	
Company 1	13	9	35.97	Higher	20.16
Company 2	5	9	4.55	Lower	-4.64
Company 3	8	8	6.75	Lower	-2.44
Company 4	15	6	22.62	Higher	6.81
Company 5	10	5	4.76	Lower	-4.43
Company 6	12	3	4.46	Lower	-4.73
Company 7	20	1	24.13	Higher	8.32
Company 8	17	0	9.01	Lower	-0.18

Table 14: Binomial distribution analysis

As illustrated in Table 14, since all average investments were abnormal, there is an underlying element of preference between financial returns and social performance. This highlights the trade-off between the two variables. By indicating their preferences, participants have shown that the two variables affect how they evaluate investment prospects. This supports our argument, suggesting that NFI plays a significant role within investors' decision-making process.

6.2.2 MULTIPLE LINEAR REGRESSION

In the second stage of the analysis, a multiple linear regression was used to analyse the two independent variables: financial returns and social performance. The form of the multiple linear regression is described in Figure 5.

Figure 5: Multiple linear regression form

$$\boxed{z = k + \alpha x + \beta y}$$

It measures the independent variables' impact on the dependent variable, the average investment, where:

z = Predicted average investments
k = Intercept of the plot line
x = Financial returns
y = Social performance
α = Financial returns coefficient
β = Social performance coefficient

StatPlus was used to compute the regression for the multiple linear regression, as displayed in Figure 6.

Figure 6: Multiple linear regression equation

$$z = -52.91 + 3.619x + 4.234y$$

The applicability of the multiple linear regression was evaluated with respect to the R-Squared, adjusted R-Squared and the statistical significance of α and β, by looking at the p-value.

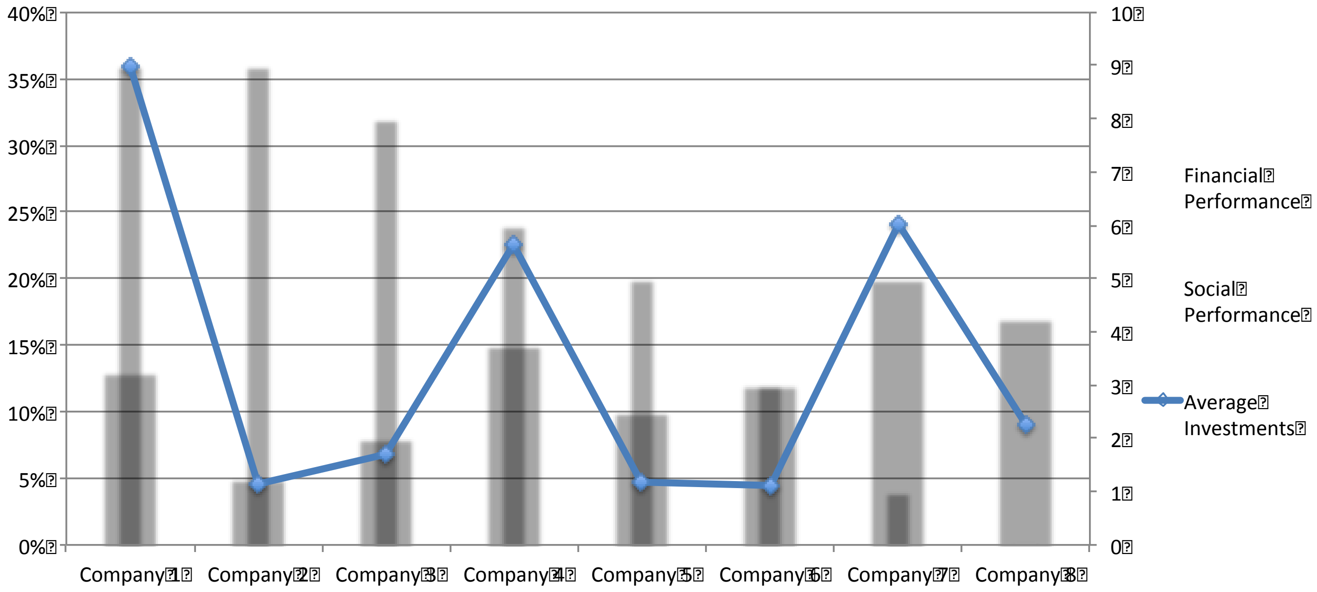
Both R-Squared values were used to interpret the extent to which the independent variables can explain the variance of the dependent variable. The R-Squared value was 95.5% and the adjusted R-Squared value was 93.8%. This illustrates the high explanatory power of the independent variables.

The p-values of α and β indicate the statistical significance of the independent variables on the dependent variable. T represents the standard significance level at 0.05 (Table 13). The p-value was tested against T, and the significance levels of α and β were found to be less than T at 0.00015 and 0.00034, respectively. They are significant outside the standard 95% confidence interval and therefore influence the outcome of the dependent variable, average investments.

The regression determines to what extent social and financial performance influence the investment decision of participants. The individual significance of each variable is difficult to estimate. However, as the coefficient of each independent variable in the multiple linear regression is similar, it can be assumed that they have relatively equal influential power.

The influence of these variables is evident when looking at average investments of participants (Figure 7). It is reasonable to suggest that the higher investments in Companies 1 and 4 are due to their above-average financial returns and social performance; and Company 7 due to its high financial return.

Figure 7: Average investments



These analytical methods and subsequent results were verified by Dr Jooyoung Jeong at the University of Bath on the 7th of March 2014.

6.3 QUALITATIVE ANALYSIS

Qualitative analysis was conducted to discover the motives behind investment decisions. Surprisingly, when comparing the rationale for investment choices in questions 7 and 8, there was a change in motive.

We expected the motives to remain unchanged for the two scenarios. However, it was evident that when asked to invest their whole allowance in one company, participants' desire for high financial returns became less significant, as illustrated in Table 15. This could be attributed to various factors; however, we can assume that social performance plays a more important role when investment diversification is limited.

		Risk	Balance	Moral	Financial	Other	Total
Question 7		14	41	14	29	7	**105**
		13%	39%	13%	28%	7%	
Question 8		18	54	5	19	28	**124**
		15%	44%	4%	15%	23%	
Total		**32**	**95**	**19**	**48**	**35**	**229**
		14%	**41%**	**8%**	**21%**	**15%**	

Table 15: Investment motives

6.4 CONCLUSION

The survey analysis showed that social performance is an important factor with respect to investment decision-making. It was proven by binomial distribution and multiple linear regression that the independent variables, financial returns and social performance, have an impact on investment decisions. In addition to this, it was shown that there is a trade-off between the two independent variables.

Participants seemed to be divided between which factor to focus on. The majority indicated a preference for achieving either high financial returns or high social performance. However, a large group of participants compromised by choosing Company 4 (Figure 7).

The most surprising finding was that more participants preferred Companies 1 and 4 to Company 7 when asked to invest their whole allowance. The reason behind this shift in focus can be deduced from the qualitative questions in the survey as social performance plays an increasingly important factor when participants are unable to diversify.

With respect to research question 1, *"to what extent are investors interested in non-financial information",* the survey analysis showed that both financial and social factors influence investment decisions. It was further proven that a trade-off exists between the independent variables.

When looking at research question 2, *"what value does non-financial information provide investors with"* the majority of participants stated that risk aversion and striking a balance between financial and social performance formed the basis of their investment decision. This is further evidenced when the possibility of diversification is removed. The analysis of the in-depth interviews with investors will provide a more detailed understanding of these findings and further develop the analysis.

CHAPTER 7 INTERVIEW FINDINGS & ANALYSIS

CHAPTER 7: QUALITATIVE FINDINGS & ANALYSIS

In this chapter, we developed several coding trees based on our research questions, in order to highlight relevant themes that emerge from interviewees' responses. This enabled us to identify key influences with respect to our research objective.

7.1 DESCRIPTION

We aimed to interview a wide range of representatives from different sectors of the financial, pharmaceutical and research industries including one participant from the United States. This helped us gain a holistic view and minimise bias in answering our research objective. We interviewed twelve participants covering a wide range of professions:

- Two Sustainability Consultants
- Fund Manager
- Fund Investor
- Investor relations, private equity
- Asset Manager
- Relationship manager, ethical screening
- Researcher, ethical investment management
- Analyst, investment advisor (United States)
- Director, pharmaceutical company
- Academic
- Financial industry expert

In our findings, we refer to investors as general investors, not specifically socially responsible.

We decided to use open-ended interview questions to allow for participants to talk freely but also had a list of prompts to ensure that all aspects of the scope were covered (Appendix IV).

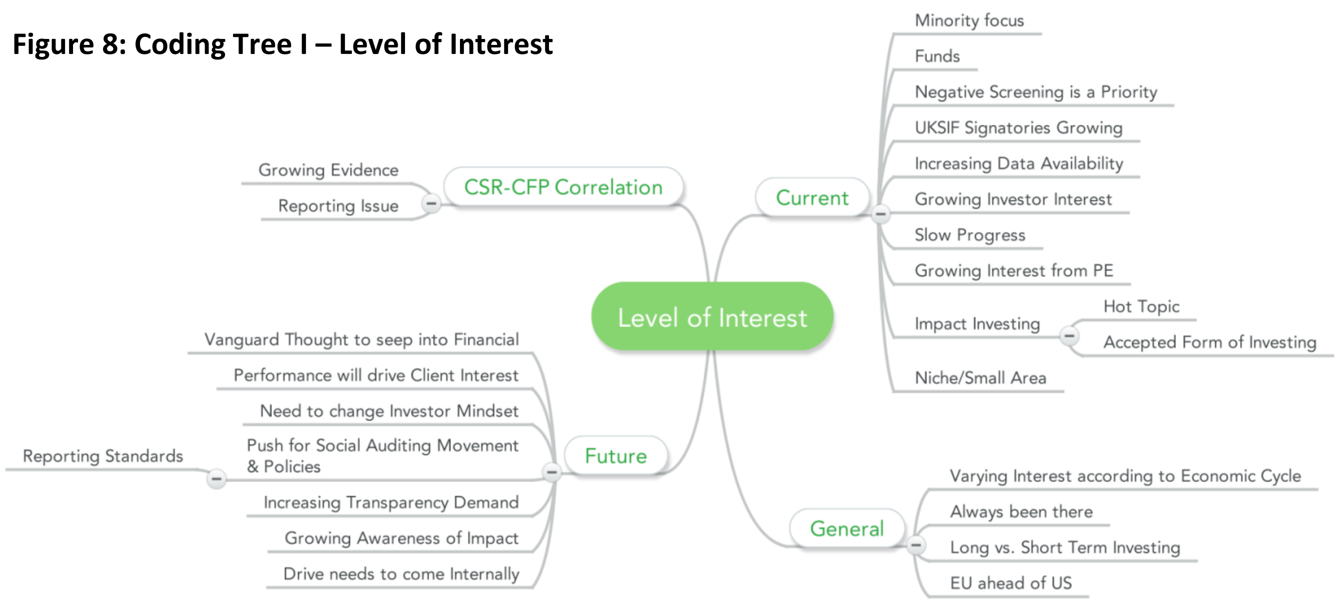
In this manner, we structured both the interview questions and analysis of our qualitative data around each research question.

7.2 RESEARCH QUESTION 1

"To what extent are investors interested in non-financial information?"

In this section, we focused on interviewees' opinions and attitudes towards the importance of NFI in the financial industry. By doing so, we were able to identify current and future trends with respect to social performance of companies and the utilisation of this information. Figure 8 below indicates the key areas that participants' identified as areas of interest and growth.

Figure 8: Coding Tree I – Level of Interest



7.2.1 CURRENT TRENDS

INCREASE IN SRI

"[Ethical Funds] were definitely on everyone's radar [in 2006], more people were launching them, it was not necessarily a fashionable thing to do, but there was definitely a trend" (Fund Investor).

Interest in NFI has grown and this is evident, in part, by the growing number of mutual fund products which consider social performance criteria. In 1995, there were 55 SRI funds with USD 12 billion in assets under management; in 2012, there were 333 funds, with assets totalling USD 640.5 billion (USSIF, 2014c).

"12 [mutual funds] to 569 in the space of 20 years, so that's quite interesting. So this has been a growing area and you can tell because we have work streams looking into this area... it's growing and will continue to grow" (Asset Manager).

The size of the aforementioned ethical funds is relatively small compared to the overall financial industry. Whilst social performance is now on investors' agenda, this doesn't always translate to investor demand, as stated by a Fund Investor: *"We do have an ethical portfolio; we just don't have any clients who use it at the moment"*. They further pointed out that *"in the scheme of the whole universe, which is sort of 3,000 funds, these are pretty small funds; which just goes to show that there isn't a great deal of investor demand out there"* (Fund Investor).

However, there are contrasting views on whether there are sufficient opportunities for socially-minded investors. *"Generally, market-wide, there is a growing sense of individual investors and institutional investors that are socially minded. I just don't know how many vehicles exist to help yet"* (Sustainability Consultant).

The overall growth in the area is positive; however, the source of this increasing interest is unclear. There is activity from both the supply and demand side, but it is evident that ethical funds have to perform well before investors indicate demand.

"I think now that the performance [of our ethical fund] has picked up and it's the strongest performing portfolio, it's going to grab attention, for right or wrong reasons. People do look at what's performed strongly and what hasn't, and I think this will be picked up and people will be like 'oh ethical portfolio has done really well maybe we should be having a better look at this'" (Fund Investor).

INCREASE IN DATA AVAILABILITY

In addition to the increase in SRI, there are a growing number of third party data providers that focus on social performance-related services, such as screening. This information is in demand by the financial industry as investors include NFI in their decision making.

"*So we process a vast amount of research produced by anybody from academics to broker dealers, investment banks who have large research departments broken down by industry… and we have a pharmaceutical analyst internally. We use specialist third party research in* *this space. So we subscribe to databases of screened ethical information. So pretty much anything which exists in this space, we would use it... to help understand the risk and return of investments.*" (Asset Manager).

In general, investors have noticed that NFI has become more widely available, which strongly indicates progression in the area.

"Unambiguously this has been a growth area. And you can see that in different ways. But you can see that due to the growth in the amount of data available and index provision that this has been getting bigger" (Asset Manager).

THE VALUE OF NFI

As found in the literature review, investments incorporating NFI are believed to be a strong indicator of long-term performance (Brammer, Millington & Cox, 2004). Although there has been a recent upswing in the use of NFI, it has always played a subtle part in investment decisions.

"It's always been there. In companies where there has been a divide in that sort of financial and non-financial, I don't think it's never been there. NFI always flavours a business. You have to have that element in a business" (Fund Manager).

There is a lack of consensus with regards to NFI and the ability to quantify its impact. However, investors are beginning to acknowledge that a focus on NFI does not necessarily equate to financial underperformance.

"Looking at specific ESG data points, it's not easy to quantify how those affect a company in a positive or negative way. But if you look at all the managers and all investment professionals that are integrating ESG data into their investment process and making decisions based on that integration, it does not lead them to underperform benchmarks or their peers. … for the most part, the evidence is suggesting they are in line" (Analyst).

INCREASE IN PUBLIC AWARENESS

According to our research, it could be speculated that the immediate impact of the economic crisis forced investors to focus on retrieving investment losses and minimising risk exposure, neglecting the importance of social performance (Leisinger, 2011).

> *"I think with the credit crisis everyone's ethical concerns and considerations went out the window. When everything else was going on, everyone sort of forgot that they were ethical. But I suppose now we're moving past the stage of panic, that it's probably moving more and more up people's agendas again"* (Fund Investor).

Since the economic crisis, there has been an increase in public awareness and evaluation of the risks of potential investments (Ceres, 2010). *"Maybe it was a result of the banking crisis when people became aware of ethics; it's a massive, massive growth area"* (Researcher).

In addition, people are increasingly more concerned about where their money is going.

"The next generation of people inheriting this money actually care about what good or bad it does to the world, or a larger percentage of people are. And that's a really big fundamental shift in the way money will be allocated" (Analyst).

The combination of the economic crisis and increased public awareness has contributed to the development of SRI.

7.2.2 FUTURE EXPECTATIONS

"We need to be thinking about having ethical funds in our portfolios, in our pensions, because 40 years down the line, what we're doing to the planet now might affect what type of companies we are investing in" (Fund Investor).

Interviewees identified several topics, which are expected to influence the rate of adoption of NFI. *"It's becoming a lot more accepted that ethical issues can actually have a significant financial impact on companies"* (Researcher).

INCREASE IN DEMAND

In line with the 'Utility model' advocated by Gurthie & Parker (1990 cited in Epstein & Freeman, 1994), it is expected that the areas of SRI will continue to grow as a result of increased stakeholder demand. *"There's growing interest from firms like us, there's growing interest from investors, from the actual companies. I think everything is growing in that direction"* (Analyst). As such, SRI is expected to become more integrated in mainstream investment practices. *"There is definitely a place for SRI. There's a rising awareness of the* *negative impact of corporate entities, and managements will become more aware of it and more transparent"* (Financial Expert).

REPORTING STANDARDISATION

"Internationally it is very important because the investment community look at [reporting standards] around the world. I see very positive signs of this being taken into people's hearts, the practice of reporting" (Academic).

Participants identified that the lack of reporting standards currently hinders the adoption of NFI. Establishing global standards will help to drive the development. However, as standards change, this will be a challenging goal to reach. *"You're looking at moving targets, constantly. The standards of today would not be acceptable probably in 10 years tomorrow, simply because they change"* (Fund Manager).

As the environmental and social factors facing industries can vastly differ in materiality, creating universal standards may fail to account for industry-specific factors, limiting the accuracy of the measurement. *"It is possible to create a framework that encompasses all sectors; I just think it would be a bit more superficial"* (Analyst).

INDUSTRY

The levels of uncertainty associated with SRI can lead to mimetic or normative institutional isomorphism (DiMaggio & Powell, 1983). As a successful company integrates NFI into their processes, it is expected that other institutions will follow. *"The idea of all this reporting and why companies spend money doing it is because they feel like they have to, especially if their* *competitors are doing it"* (Academic). This can help drive the adoption of standardised NFI reporting, but can also lead to herd behaviour (Juravle & Lewis, 2008).

> *"There is a slow progress, there is a desire to change direction, but it'll only happen slowly. Standards tend to follow in the vanguard because of information provided by the more successful companies doing it well and then people taking those ideals around that company and trying to generalise and create an environment that others understand and say, 'well we should be adopting those as well because it's good for us, we can see a successful business doing it'. I think that is going to get on far more quickly than the sort of slightly overarching diffusion of UN statements that are made quite often"* (Fund Manager).

7.2.3 CONCLUSION

Overall, our findings have indicated that investors' are interested in NFI, reflected in the recent growth of ethical mutual funds and third party data providers. Investors' perceptions on NFI are predicted to develop further as they acknowledge the positive impact of social performance.

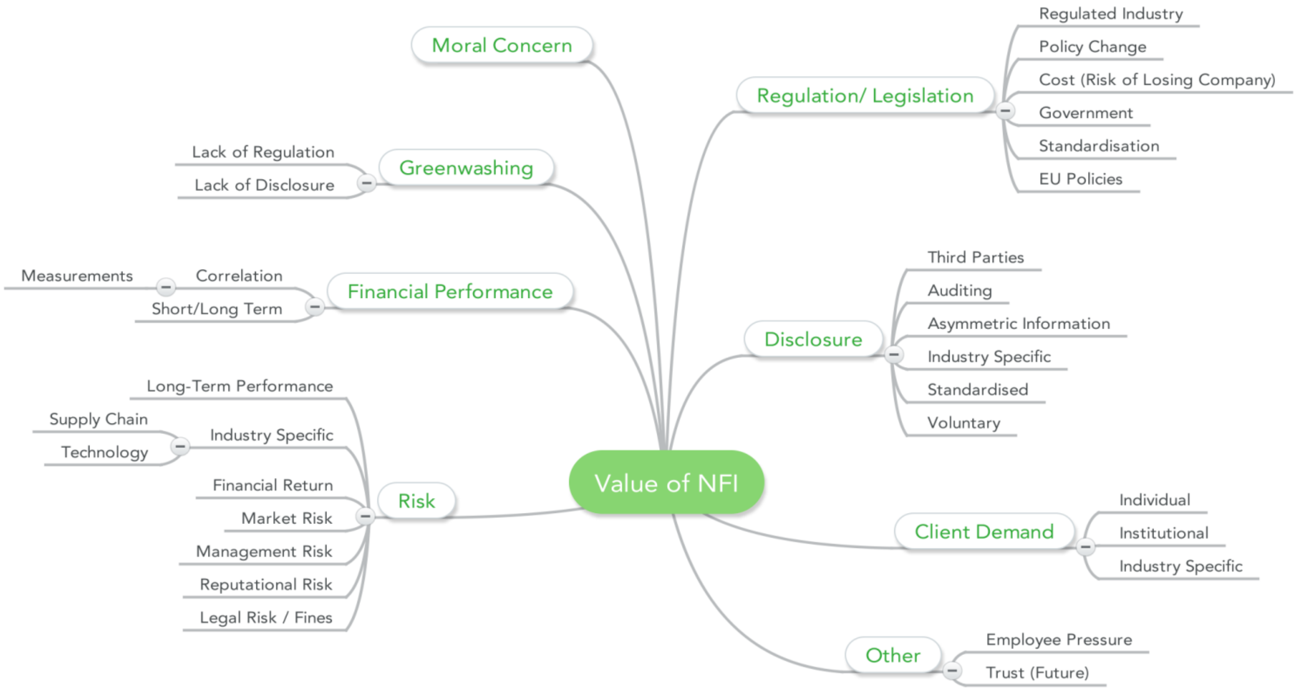
The future looks promising for the use of NFI in investment decisions, but it is difficult to determine whether industry or regulatory bodies will drive the demand. It is best summed up by one of our interviewees: *"I can see there is scope for development in the future but the* *unanswered question in my mind is, how far will the investment community take this?"* (Academic).

7.3 RESEARCH QUESTION 2

"What value does non-financial information provide investors with?"

In this section, we investigated the value of NFI and its impact on investment choices and those making the investment decisions. In addition, we identified external factors that impact the way in which investors value NFI. Figure 9 below displays the key themes that arose from our interviews.

Figure 9: Coding Tree II – Value of NFI



7.3.1 DIRECT INFLUENCES

RELATIONSHIP BETWEEN SOCIAL AND FINANCIAL PERFORMANCE

It cannot be denied that the role of investors is to achieve the best possible financial returns for their clients (Friedman, 1962 cited in Ruf et al., 2001). The value that our interviewees placed on NFI ultimately relates to their perception of the correlation between social and financial performance.

Since 1972, there have been over 167 studies linking social and financial performance (Margolis, Elfenbein & Walsh, 2007), but these studies lack consistent use of variables and therefore results can be deemed ambiguous. In line with the literature, there is a lack of consensus regarding the relationship between social and financial performance (McWilliams and Siegel, 2001; Margolis, Elfenbein & Walsh, 2007; Porter & Kramer, 2006; Van Beurden & Gössling, 2008). *"We haven't done any studies in-house for the kind of correlation between ESG performance against financial performance, but there's a few out there that show mixed results about the correlation; some show more performance and others negative"* (Relationship Manager).

However, investors "*that are applying an ethical overlay [have] started to see parallels between companies who looked after ESG issues and those which in the long term were making better returns on their money"* (Relationship Manager). As identified by Lydenberg (2007), NFI is not only used by social investors, as universal investors are also starting to take notice. "*You don't have to be an ethical investor in the traditional sense to invest* *ethically anymore. Long-term returns are appearing to be linked to positive social and environmental performance*" (Relationship Manager).

Brammer, Millington & Cox (2004) identified that investments in social performance can only be realised in the long term. Our research supports this view and also the hypothesis suggested by Renneboog, Ter Horst & Zhang (2008) as investing responsibly has the potential to outperform investments that do not take NFI into consideration.

"We certainly see a trend that companies that are operating responsibly and are taking care, are in the long term at least outperforming those who aren't paying any attention to this" (Relationship Manager).

Investors acknowledged that, *"a company that runs purely on financial decisions is never going to make it"* (Fund Manager). Examples such as the BP oil spill in the Gulf of Mexico have highlighted the negative effects of neglecting NFI. However, the market impact of positive social responsibility is harder to quantify. "*It is harder to understand when you're complying and everything is fine whether it is doing you any benefit in terms of absolute share price. I think it definitely does benefit you in terms of performance of the company which hopefully impacts on the share price eventually"* (Director).

RISK

Investors acknowledge the value that NFI provides, with regards to indicating long-term liabilities of potential investment decisions. *"In terms of a risk perspective, if you don't* *address ESG issues properly then you're going to compromise its ability to grow or its long-term liability"* (Investor Relations). Ultimately, NFI can highlight to investors potential event risk specific to that company. *"It gives us the ability to assess longer term risks, to get a better understanding of management and their decision-making process in what kind of event risk will unfold based on their competencies"* (Analyst).

We found that specifically within the private equity market, the types of risk that investors are exposed to can vary depending on the industry. Consequently, the value placed on NFI in different sectors doesn't differ, rather the *"intrinsic risk and opportunities will be greater in one sector versus another"* (Investor Relations). This can relate to supply chain or technology risks, which are prevalent in certain industries. Investors' perceived value of NFI is dependent on their willingness to be exposed to certain risks, which could impact the value of an asset. This was especially relevant with regards to the healthcare industry. *"We haven't invested in those kind of sectors because of a lot of technology risk is involved and we prefer to have market risk if we have to"* (Investor Relations). This supports the findings which exist in current literature, suggesting that NFI can contribute to lowering idiosyncratic risk. (Fombrun, Gardberg & Barnett, 2000; Godfrey, 2004; Godfrey, Merrill & Hansen, 2009; Luo and Bhattacharya, 2009; Petersen & Vredenburg, 2009).

The impact of NFI on risk return calculation still remains unclear. *"I think the jury is completely out in terms of whether socially responsible investing is beneficial from a risk return perspective"* (Asset Manager). In order to understand the relationship, *"you need to make some predictions about how this social responsibility is priced"* (Asset Manager). As identified in the literature review, semi-strong form of Efficient Market Hypothesis (EMH) argues that market prices are reflective of all publicly disclosed information (Fama, 1970). To assume that sustainable investments carry less risk, means that they are either highly overpriced, or offer a lower rate of return. As such *"if you want to argue that socially responsible investing is a good investment strategy and will produce higher risk adjusted rates of return, then somehow you have to believe the market is mispricing social responsibility and the risks thereof"* (Asset Manager). Ultimately, compared to the market, SRI carries completely different exposure to risk.

<u>REPUTATION</u>

According to the literature, reputation has a stronger positive correlation to financial performance than other measurements (Friedman & Miles, 2002; Bebbington, Larrinaga & Moneva, 2008; Porter & Kramer, 2006). Although this was not explicitly stated by any interview participants, its importance was undeniable. A director stated "*any negative publicity is often a trigger for people to sell your shares and that always drives your price down".* It was also found that *"if you are seen to be a company [where] these issues are important... it helps you retain [and]...get good employees"* (Director). As a result, although this view might be seen as cynical, a high importance is placed on "*reputational risk management... [and] protective reputation*" (Sustainability Consultant).

It can be argued that there are benefits of having a good reputation both financially and non-financially. However, the lack of regulation, clear reporting standards and selective disclosure in the market regarding NFI can lead to a high susceptibility to greenwashing

(Eccles et al., 2012; Mahoney et al., 2012). In today's environment where there is an increasing demand for responsible investing "*it's a good marketing thing to say 'we have these portfolios and we also have an ethical fund'*" (Fund Investor).

As most firms only reflect what they chose to disclose, it is challenging to determine a company's social performance from the standpoint of an external actor. This supports the 'political economy model' as companies act according to self-interest (Gurthie and Parker, 1990 cited in Epstein & Freedman, 1994). Participants acknowledge this barrier towards the influence of NFI as one stated, companies with "*poorer performances report more to try and counterbalance it. They aren't so good about telling you about values but they report on their activities. So… there is a bit of gamesmanship*". Another identified the difference between recycling "*1 million bottles versus being responsible or accountable for the things they actually say they do*" (Sustainability Consultant).

An additional issue identified was the difficulty to quantify reputation. "*Negative publicity is not going to do any company any favours... [and] the upside is harder to measure than the downside*" (Director). As a result, it is essential to look at various factors such as "*the different steps of the company's value-adding supply chain, its management policies, whether the company's product is of quality, whether the company abides to the local legislations, internal audits, infrastructures, etc.*" (Financial Expert).

7.3.2 INDIRECT INFLUENCES

Moral concern, regulation and disclosure have been found to influence the way in which investors perceive and value NFI.

MORAL CONCERN

An investor's moral concern as well as that of their fund managers can influence the value they place of NFI (Brønn & Vidaver-Cohen, 2009). Those involved in impact investing within asset management firms are targeting more ethical companies and ignoring companies involved in 'sin stocks' as *"clients and investors feel good about it, [and] maybe... this has some positive impact on return"* (Asset Manager).

In some circumstances, the way NFI is perceived by investors "*very much depends on the underlying client"* (Asset Manager). Private equity firms face increasing pressure from their investors to act more responsibly. It is the "*underlying pension funds, sovereign wealth funds, insurance companies etc. who over the last 5 or 6 years have become increasingly focused on ESG, both from a risk management perspective but also opportunity perspective"* (Investor Relations). This has also been validated by participants who identified their influence and responsibility as investors.

> "*You do have quite a lot of power, when you invest, you can influence company performance. So they are now beginning to ask questions that they would never have asked before. But very often, I think that a lot of companies actually enjoy being asked these questions and care beyond their share price and profit"* (Sustainability Consultant).

The pressure of moral concerns from individual investors and their clients seemed relatively overlooked within existing literature, as most articles identified investors in their 'traditional' sense (Jansson & Biel, 2010; Juravle & Lewis, 2008; Renneboog, Ter Horst & Zhang, 2008; Sethi, 2005). We found that internal pressure from fund managers and company employees positively correlates with the internal value placed on NFI. An analyst reflected that "*half of [his team] are very focused on sustainability, so we're the ones who contributed to the formation of the [ethical] framework*". Individual morals and company mission statements give evidence to the importance of NFI within a company.

"*It is not just your shareholders [that care], it is the internal goodwill you generate by making sure the company does what it can to comply...and does additional things where possible*" (Director).

This internal moral concern can be said to be more inherent in particular industries, as "*different industries face different issues*" (Researcher). For example, in the pharmaceutical and biomedical industry, where the main focus is to help patients, the whole "*nature of what [they] do is very much around corporate social responsibility...there are green committees within these companies [where] employees volunteer to work with the company to ensure that [they] are doing everything [they] can*" (Director). An investment researcher expanded on this, stating that within the pharmaceutical and cosmetics industries some ethical "*compliants will object to [animal testing] while others accept it for medical purposes*".

REGULATION

The role of regulation and legislation enforced by governments can act as a key driver in the influence of NFI. Specifically, industry regulations add a level of expectation from investors regarding the standard of NFI disclosure. *"The [pharmaceutical] industry is so highly regulated, there is an expectation they will report on certain issues. It's probably not coming from individual investors but institutional investors and from legislators – so middle and top down demand. When things go wrong, the impact is perhaps bigger. So there is an expectation they should be dealing with them appropriately and vigorously as well"* (Relationship Manager).

In addition, high regulation in the pharmaceutical industry requires them to *"have a very good conscience and awareness of [NFI] issues"* (Director). This was further suggested within the private equity industry, where it was acknowledged that companies in highly regulated sectors are *"pretty sophisticated and effective in how they address these issues"* (Investor Relations). Conversely, in heavy industries such as oil and gas, the importance of NFI takes more of a Transaction Cost Economics view (Ruf et al., 2001) as the cost of implementing sustainable practices might outweigh the benefits. "*There's more of a complex equation between them trying to be very compliant and how much it might cost them to be compliant"* (Director).

Shareholders, as well as companies, are keen to comply with the guidelines and regulations set by the UN and governments and disclose appropriately. Non-compliance could damage their reputation and financial returns, highlighting the influence these bodies have on the perceived value of NFI, as they act as a deterrent (Murphy & McGrath, 2013). *"Better to take preventative action by doing something voluntarily rather than risk having a rule imposed" (*Academic*).*

However, as SRI remains a developing regulatory area, the potential for changes in law and regulation were identified to add a level of complexity. *"Any company you are buying on the basis that it has a particular set of things which either violate or don't violate some code of ethics, puts you right in the area of changing regulation and policy"* (Asset Manager).

Investors acknowledge that there is still scope of regulatory improvement regarding companies' reporting standards, in order to minimise the propensity to greenwash. *"Until you've got some kind of regulation and standardisation, companies will potentially play fast and loose and basically use this information in a PR way"* (Academic). The industry seems to be moving in the right direction, as the Companies Act 2006 introduced a new requirement where quoted companies will have to legally report on carbon usage in a standardised way (UK Department of Environment, Food & Rural Affairs, 2014). Voluntary initiatives, such as the UN-supported PRI, have helped increase the compliance of these regulations. "*You have to take your hat off to the UN and others who encouraged an element of that thinking"* (Fund Manager).

DISCLOSURE

A Sustainability Consultant raised a valuable question during the interviews by asking, "*does CSR actually do what it says it does?*"

It was found that the industry has been “*very responsive to [disclosing] on a voluntary basis*” (Academic). This has largely been driven by pressure from internal compliance departments and external stakeholders, such as regulatory bodies, who are “*very keen to ensure that companies are doing all they can to fully inform their investors”* (Director). They specifically focus on the disclosure of key areas such as director remuneration, carbon usage, environmental performance and general corporate social responsibility (Director). Disclosures on these issues were found to be important because “*unless you’re a non-exec of the company itself, you can only get a flavour for… [if they] use their resources in a way that is efficient and friendly”* (Fund Manager). High levels of disclosure will impact the value of NFI as it helps to reduce issues of asymmetric information between shareholders and firms (Godfrey, Merrill & Hansen, 2009; Renneboog, Ter Horst & Zhang, 2008).

In terms of industry-specific disclosure, a surprising finding was the general consensus among interviewees that particular industries did not need to disclose more NFI than others. Rather, individual companies are expected “*to have a strong disclosure on the issues most material to their sector or business. So for pharmaceuticals we would want to see much greater disclosure on product recalls and product safety”* (Analyst). Although industry-specific reporting reduces the ability to compare NFI between sectors, investors are able to access information material to their decision making (Eccles et al., 2012). It is important that investors have access to *“a framework which is sufficiently strong and sufficiently reflective of what we need as a society, rather than what people tell you”* (Sustainability Consultant). Currently, different perspectives can be given on similar issues; hindering the accuracy of the value of NFI since "*[there is no one] checking what they say they are doing is the truth*" (Relationship Manager).

It was highlighted that ethical funds need to disclose more than mainstream funds as *"they have to justify their screening process [and display] strict ethical criteria"* (Fund Investor). A fund investor highlighted that "*if there was an ethical sector, then we would know at least that everything has had to go through a due diligence process*". There needs to be a push towards "*standardised social measurement reporting*" that can be integrated into financial auditing resulting in "*greater transparency and comparability of social performance data"* (Sustainability Consultant).

7.3.3 CONCLUDE

Figure 10: Perceived and actual values of NFI

The value placed on NFI by investors has increased as they realise the positive correlation between social and financial performance. NFI has become increasingly accepted to benefit investors and their decision making, as it highlights firms' idiosyncratic risk. This can minimise a firm's and their investor's exposure to financial implications caused by non-compliance to social and environmental practices. Furthermore, NFI of potential investments can signal a positive reputation to investors. The reputational risk management of investments will provide value to investors through minimising the financial impact of damaging reputations.

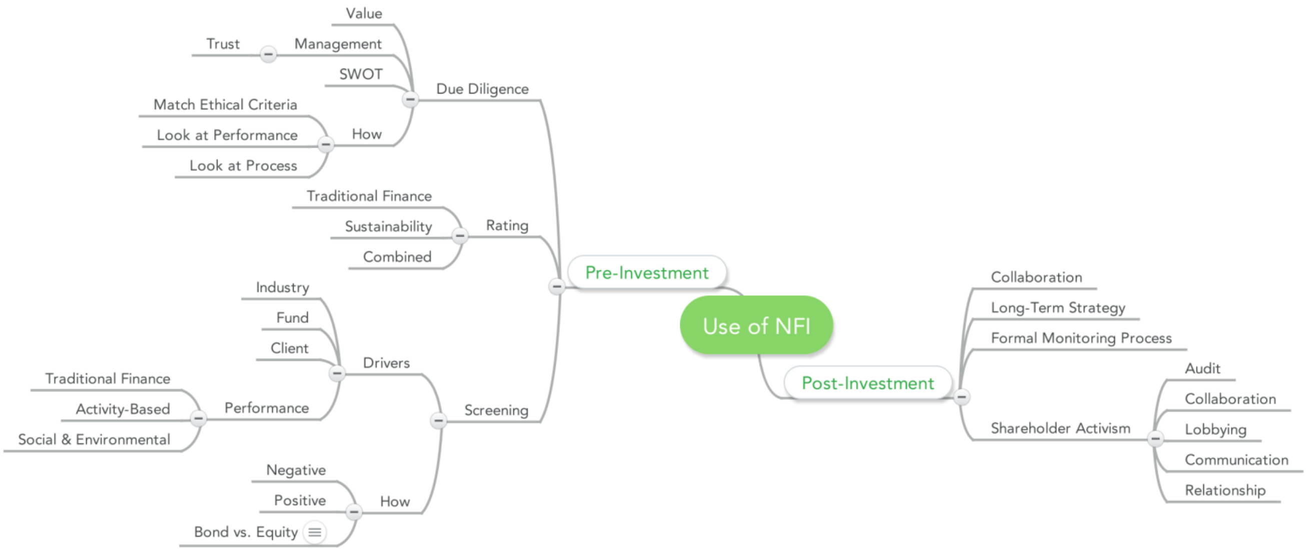
Concerns and demands, internally from employees and externally through clients, have increased the value of NFI. The role it plays within the industry is growing significantly, especially as regulations have been implemented. The extent to which NFI can provide additional value for investors is affected by the lack of standardisation of reporting, as the risk of greenwashing remains.

7.4 RESEARCH QUESTION 3

"How do investors use non-financial information to make investment decisions?"

Lydenberg (2007) and Renneboog, Ter Horst & Zhang (2008) identified ESG incorporation, such as screening and stakeholder engagement as key approaches to SRI. This was validated through the interview process. We also found that investors use NFI for due diligence and screening before making an investment decision, as well as for monitoring and collaboration activities post-investment. The recurring themes resulting from our findings can be seen in Figure 10.

Figure 101: Coding Tree III – Use of NFI



7.4.1 PRE-INVESTMENT

SCREENING

In line with the literature (Dillenburg, Greene & Erekson, 2003), screening is "*unambiguously part of the investment calculus*" (Asset Manager). Although the type of screening is not usually very dissimilar for different asset classes, we found that the screening criteria differ between fund managers and institutional or individual investors. Funds generally have a formalised process where they look at "*fund size, how long the fund has been going [and] track record. Cost is [also] an important thing, particularly at the moment, in this environment*" (Fund Investor). For asset managers, however, the screening criteria "*very much depend on the level of interest of the client*" (Researcher).

"A classic type of mandate in this space is that a client will come along and say, 'we don't want you to invest in any type of defence companies, or tobacco companies or companies

that violate any number of ethical restrictions that we seek to identify'" (Asset Manager). This constitutes a form of negative screening as identified by Renneboog, Ter Horst & Zhang (2008), which is the *"most common form of socially responsible investing"* (Asset Manager).

However, movements are increasing towards third generation screening (Renneboog, Ter Horst & Zhang, 2008), as investors use multiple criteria. They typically look at performance measures which include "*activity-based things like investing in tobacco and social performance issues like human rights, so employees' relations, [and] environmental management*" (Researcher). This enables investors to establish positive and negative screening criteria, which help them deduce where to invest and how to monitor their funds.

DUE DILIGENCE

It must be noted that financial performance ultimately plays an important role in the pre-investment decision process. *"If there are loss makers in my portfolios, I'm not going to invest in them – although some fund managers do put a few in their bottle as they will turn into profitable businesses"* (Fund Manager).

However due diligence was identified by our participants as a crucial process whereby investors are "*always judging the company on its financial and its non-financial information and how it conducts itself"* (Fund Manager). As an emerging area of importance, the academic literature remains under-researched.

Investors identify due diligence as a means to work out if they "*can add value to the business, how [they] would do that, what does the management look like, what's the market* *opportunities [and] where's the risk around the business*" (Investor Relations). This is done to ensure they choose *"the best fund to fit into [their] asset allocation"* in terms of the "*right performance, process, track record, everything"* (Fund Investor). The importance of this process has increased as investors acknowledge the necessity to focus longer term.

Participants identified trust in management as a key influencing factor (Petersen & Vredenburg, 2009). This is a relatively underdeveloped area of literature with regards to SRI. A fund investor stated that if they had two funds they couldn't distinguish between in terms of social and financial performance, then they would look at who "*has the best track record of generating returns for the process that they're operating*". This was seen to be a good indication of the future success of the company, as investors looked for "*honest people... [who are] able to run a business that is investable in*" (Fund Manager).

To ensure that their ethical criteria match those of their beneficiaries, many investors and companies develop a process or framework within their "*investment activity such that [they] could be more systematic and that essentially requires the investment teams, when they look at an opportunity, to explicitly discuss at one stage of the process...what the issues are around target companies, ESG activities or issues*" (Investor Relations).

Some investors develop internal ratings in conjunction with the due diligence process. NFI is quantified to generate a sustainability score.

"*The goal for us is to have everything in that analysis be additive to the traditional [financial] analysis. There's no overlap and you want only issues or matrices that would be material to credit quality, either over the short-term or long-term*" (Analyst).

NFI is used pre-investment to provide investors with a holistic view of potential investments. Integrating this in the decision-making process allows them to identify potential opportunities and risks, which cannot be identified through traditional financial analysis.

7.4.2 POST-INVESTMENT

The role that NFI plays after the initial investment decision can be integral in monitoring the performance of a firm in the long term.

LONG-TERM STRATEGY

"*We're definitely not short term. If we take a position in a company it's because we think that company is going to do well and that's the kind of approach taken by the whole of us, not just us from the ethical side"* (Researcher).

NFI can be used to justify financial decisions over time as *"the more data available [for investors]...the more that they will incorporate [NFI] over time; it's not usually a light bulb moment, it's just a drag of information"* (Fund Manager).

The purpose of NFI post-investment is to help investors judge a company's performance and future predictions. As summarised by a fund manager, they use NFI to assess "*what [a* *company has] done, how they've done it and how they've gone about producing those profits. Has it been done in a way that gives them good scope to continue the progress or did it take an absolute effort for them to get to that point and it's going to take them an awful effort just to sustain that kind of delivery to keep them growing".*

SHAREHOLDER ENGAGEMENT

Shareholder engagement comprises of investors communicating their concerns regarding the sustainability of a portfolio company to the management and applying pressure, as a shareholder, to improve issues (Lewis & Mackenzie, 2000,). Shareholder pressure illustrates the extent to which they care about certain issues and involves the use of "*shareholder rights to lobby"* (Sustainability Consultant). *"It's very much a part of our approach to responsible investing. If we can facilitate change for the better through our holdings then it should be done on behalf of our clients"* (Researcher).

Investors can help to implement the ideas and visions that their invested companies have. Successful collaboration, *"the coming together of dynamic thinking and financial nose [has the ability to] create and not necessarily destroy"* (Fund Manager). In addition, there is also a movement towards collaboration with other investment groups. The PRI has established an electronic clearing house which facilitates collaborative engagement projects. "*It's a good way to engage with investors who are all concerned about a particular issue and coming together to share resources"* (Researcher).

We found that the level of engagement varies depending on the significance of the investment and the issues and risks that investors are exposed to. Auditing or ‘formal monitoring processes’ are undertaken on a systematic basis, in order for investors to understand *“exactly what's going on in the company, how it's performing compared to various targets, what progress are [they] making…[and to] clarify and define exactly what steps we feel we need to take with specific regards to ESG”* (Investor Relations).

Communication can take on more informal formats, such as phone calls or face-to-face meetings. *“We look at a fund and [if] the performance has perhaps been a bit iffy, we ring them up and say ‘what’s going on?’”* (Fund Investor). Strong relationships with company representatives help facilitate the review of their activities.

7.4.3 CONCLUDE

Figure 12: Stages of NFI integration

The methods of integrating NFI into the decision-making process have developed to involve various methods. The role of negative screening was highly noted within literature (Dillenburg, Greene & Erekson, 2003; Renneboog, Ter Horst & Zhang, 2008; Stewart, Berard & Fruscella, 2012). This process has developed to incorporate both positive and negative criteria, reflecting a more holistic view. Most interviewees mentioned that no standard criteria have been developed, as it is mostly client driven. Instead, incorporating NFI in due diligence processes has developed and become a significant factor within investment decisions, valued as additive material to traditional financial analysis.

Post-investment, there is an emphasis on long-term collaboration and stakeholder engagement, as investors monitor the development of NFI. We found that trust in management is an important factor investors use in their due diligence analysis and long-term engagement. Investors are acknowledging the role and influence they carry, and the capacity to change and improve companies in the long term.

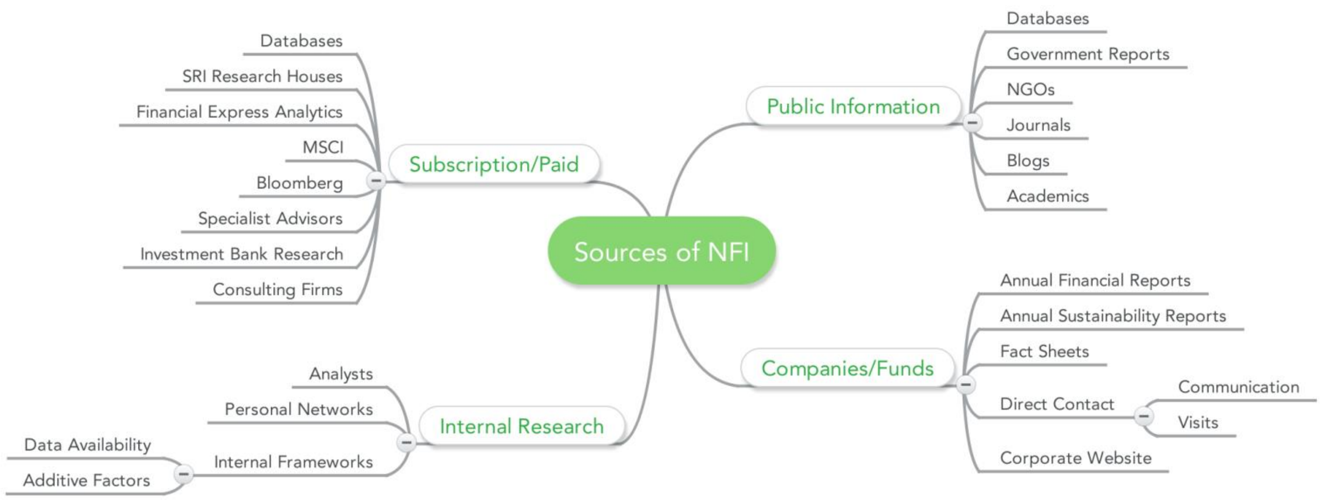
7.5 RESEARCH QUESTION 4

"Where do investors gather non-financial information from?"

We found that there is a gap in existing literature regarding the methods through which investors gather NFI. To date, most academic papers have focused on the relationship between social and financial performance and not on a granular level, such as how NFI is gathered.

Our findings established that investors use an array of sources to capture the information they require (Figure 13). Most NFI is gathered from public sources, largely for legal reasons as one interviewee stated that *"there are laws which preclude the use of private information"* (Asset Manager).

Figure 13: Coding Tree IV – Sources of NFI



7.5.1 PUBLIC INFORMATION

Interviewees stated that it is essential to use a myriad of reliable sources to cross-reference information, as they are found to be useful for different issues. As stated by a relationship manager, they "*look for contradictory evidence from NGOs, government reports, journals and even blogs. Compiling all of that, looking at the information, taking into account any bias which may come from a particular source and then making sure it's all balanced appropriately*".

7.5.2 COMPANIES AND FUNDS

The disclosure of information has also increased as reports are now available online and on corporate websites. "*You can do a lot of work now on the web that you never used to be* *able to do*” (Fund Manager). The accessibility of this information has also increased through the consolidation of online reports.

Companies’ annual financial and sustainability reports voluntarily disclose NFI. It is possible to get information directly from the company or fund which can be “*anything from that short one-page summary to a highly interesting 10-15 page document*” (Researcher). However, in order to get a full picture of a company’s ESG activities, it is sometimes required to communicate with the firm in question directly.

“*We will on occasion contact them if we feel there might be an issue that hasn’t been fully covered or seems to have a disparity with previous years of reporting. We try and balance it, so as much information we get from companies themselves, we’ll try and look for their critical perspective as well, so it balances out*” (Asset Manager). A fund manager reiterated this point by stating “*it can be quite difficult. You can only get a feel by constantly seeing a company, getting to understand it for a longer term to get a feel of its practices*” (Fund Manager). This suggests that published NFI has a limited degree of utility, and investors can obtain a more in-depth understanding through directly contacting the company in question.

7.5.3 SPECIALIST RESEARCH

Various institutions offer specialist research, some of which require a subscription or fee, and others come as an additional free service to existing clients. Well-established research providers, such as Bloomberg, MSCI and Financial Express Analytics, as well as specialist SRI research houses, are frequently used by investors. These research providers integrate ESG issues into the financial analysis. Investment advisors *"aggregate all [the data], score it and then add a subjective in-house component of a scoring model"* (Analyst).

Within large asset management firms, internal research departments are broken down by industry and "*spend their life processing [ESG] information to help [investors] understand the risk and return of companies"* (Asset Manager).

> *"They've got networks across those sectors that have a lot of professional experience so they will have some knowledge themselves which will help them reach an initial view"* (Fund Manager).

Increasingly, fund managers are dedicating internal work streams to ESG issues. By committing more resources to these areas, knowledge is increasing and the networks of information available to investors are becoming more comprehensive and sophisticated.

The issue and the extent to which it is disclosed determines the amount of research required. Initiatives, such as Carbon Exposure Project, have helped *"standardise and normalise carbon enforcing. You find that [the] quality and range of data is far better now than it was five years ago"* (Researcher). Specific industries, such as chemicals, may require additional consultancy support from external advisors who provide specialist knowledge which exceeds the capacity of general research analysts.

7.5.4 CONCLUDE

The number of SRI data providers has increased over recent years in line with demand from stakeholders. Reports from NGOs, governments and journals are often used in conjunction with corporate reports, in order to provide a more holistic view. In addition, dedicated teams within institutions are being established to support these methods as they can capitalise on existing networks and knowledge.

A demand for third party data providers remains, as they can offer additional, specialist research. Ultimately investors require different levels of information and these can be gathered from various sources. The importance of cross-referencing was prevalent in our findings as interviewees acknowledge the importance of being mindful of using corporate reports in isolation, due to issues such as greenwashing.

CHAPTER 8 DISCUSSION

DISCUSSION

In order to meet our research objective, ***"how does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry"*** we answered four key questions, which incorporated all aspects of our scope.

8.1 ANSWERING THE RESEARCH QUESTIONS

"To what extent are investors interested in non-financial information?"

From the literature review we identified growing evidence to prove a positive correlation between a firm's social and financial performance (Margolis, Elfenbein & Walsh, 2007; Orlitzky, Schmidt & Rynes, 2003; Van Beurden & Gössling, 2008). In conjunction, investors are becoming more aware of the long-term impact of their decisions on society. This seems to be driven by the long-lasting effects of the recent financial crisis and increased public scrutiny (Boesso, Kumar & Michelon, 2013; PRI, 2013b).

Findings from of our interviews supported this argument as participants acknowledged the growing use of NFI within the financial industry. They indicated an awareness of the emergence of mutual funds and third party data providers, as well as the growing demand from their stakeholders and clients. Furthermore, it can be deduced from the interviews that this trend is set to continue. As regulation and transparency in reporting develops, the mind-set of investors will develop and the ability to further integrate this concept into mainstream investing will increase.

The results from our student survey identified a trade-off between social and financial performance. Participants were given a hypothetical investment scenario where the majority chose to focus on one of the two independent variables. This finding correlated with the qualitative analysis, supporting the argument that investors are interested in NFI.

"What value does non-financial information provide investors with?"

We can deduce from the interviews, that though investors are predominantly focused on gaining the best return for their clients, integrating NFI into their decision-making process is important. By doing so, investors are able to manage long-term financial and reputational risk. This supports the argument that investors' motives are instrumental, as they focus on the long-term performance of their investments (Cropanzano et al, 2001; Hofmann, Hoelzl & Kirchler, 2008).

Liabilities and exposed risks of potential investments can be highlighted through the analysis of NFI. This perception of NFI was supported through the literature (Fombrun, Gardberg & Barnett, 2000; Murphy & McGrath, 2013), as well as indicated within the survey and interviews. When survey participants were asked to invest all their funds in one company, the amount invested in firms with high social performance increased, as it became a more important factor. We can deduce that by reducing an investor's ability to diversify, firms who indicate stronger social performance will be preferred. This could be associated with the perceived riskiness of a-social companies. This suggests the significant value placed on NFI as it helps indicate long-term liabilities of firms.

The literature review acknowledged regulation and disclosure as challenges associated with increased adoption of SRI (Eccles et al., 2012; Sethi, 2005). Through qualitative research, we identified regulatory requirements as a key driver which impacts how NFI is valued. The risk of financial implications from non-compliance has increased investors' valuation of NFI. This is further influenced by the moral concern of investors and their clients (Brønn & Vidaver-Cohen, 2009; Richardson, 2008), as people are becoming increasingly aware of firms' impact on society and the environment. Consequently, the demand and perceived importance of NFI has been driven by clients and managers, as well as personal morality-based motives.

Our research showed that investors value NFI, but preferences vary according to motives. This further supports the argument that the practices of social investors are merging with universal investors (Lydenberg, 2007). Private equity firms have arguably been ahead of the trend with the adoption of NFI, as fund managers and asset management firms gain momentum.

"How do investors use non-financial information to make investment decisions?"

There are many ways in which NFI can be incorporated into investment decision-making; screening being the most common (Lydenberg, 2007; Renneboog, Ter Horst & Zhang, 2008; Stewart, Berard & Fruscella, 2012). A combination of positive and negative screens enables investors to assess potential investments based on pre-determined criteria. This was a recurring theme within our findings as interview participants stated that screening was used to decide which companies and industries to invest in.

However, what was arguably more significant was the importance of NFI in due diligence processes. It enables investors to conduct thorough evaluation of a company's financial and non-financial performance, pre-investment. It also provided a mechanism through which they can evaluate the quality of management and ensure that the ethical and financial objectives of both parties match.

NFI was recognised to play a different role post-investment. Participants validated our findings in existing literature, expressing that investors use NFI to indicate the long-term strategies of a firm through minimising asymmetric information and monitoring firms' performance. Interestingly, we found evidence of shareholder engagement as investors increase communication and collaboration with firms, using their inherent power to lobby management on pertinent issues.

"Where do investors gather non-financial information from?"

The high level research that currently exists within literature on SRI and sustainability fails to identify specific details such as where investors obtain NFI. It can be assumed that corporate annual reports will disclose adequate information, but as the importance placed on NFI increases, the demand for objective information has grown.

From our findings, we can deduce that investors require information from a variety of public and paid-for sources. Interviewees recognised an increase in availability of data from internal and external sources, which has acted in response to growth in the industry. However, the lack of universal standards of disclosure and reporting makes it difficult to quantify NFI. This allows room for subjectivity, creating discrepancies between sources. Therefore it is integral for investors to cross-reference information in order to gain a holistic view and minimise the risk of corporate greenwashing.

8.2 FURTHER FINDINGS

A prominent theme which emerged in both the student survey and interviews, but was not apparent in the literature review, was the increasing sensitivity of the younger generation to sustainability. Cheah et al. (2011) explored generational attitudes and found that younger socially responsible investors are more likely to place the same level of importance on financial and non-financial performance. Our student survey confirmed this as participants' indicated interest in both social performance and financial returns. Although a trade-off existed between the two independent variables, it was important to achieve a balance. As such, we can infer that future investors have the potential to further develop SRI and increase pressure on companies to act in a more ethical and transparent manner.

Another unexpected theme that arose from our research was that of trust in management. Although trust is a prominent area of research regarding the financial industry, literature is limited with respect to SRI and sustainability. Petersen & Vredenburg (2009) identified the potential to increase trust and relationships between management and investors. Our findings highlighted that trust is beneficial for investors, as it indicates that management is acting in their best interest and allocating resources consistent with their investment views. This serves to minimise agency costs as alluded to by Brammer & Millington (2008), Cheah et al. (2011) and Renneboog, Ter Horst & Zhang (2008).

8.3 ANSWERING THE RESEARCH OBJECTIVE

The objective of this research was to answer the following question:

"How does social and environmental impact performance data influence investor's decision-making process in the pharmaceutical industry?"

In order to do this, we limited our scope to the following statements which formed the basis of our research questions:

- Establish the extent to which investors are interested in social and environmental impact performance data
- Determine the value investors place on social and environmental impact performance data
- Ascertain how investors use social and environmental impact performance data to inform investment decisions
- Understand where investors obtain social and environmental impact performance data from

Our initial focus on the pharmaceutical industry was complementary to the metrics developed by Vertigo Ventures. The VV-Good Index focuses on pharmaceutical companies, due to the rise in data available as a result of the increase in corporate reporting.

The lack of universal standards within SRI limited our ability to differentiate between industries, in both primary and secondary research. Consequently, this impacted the scope of our project, as we found that our research can be applied to more than one industry.

Due to the broad nature of our research objective, it was difficult to draw a concise conclusion because of the complexity and interdependency of factors. To illustrate the relationship between our key findings we developed the 'SRI Growth Model'. We focused on NFI, in the context of SRI, as there is growing potential for mainstream investors to integrate this practice. Our model represents a virtuous circle highlighting the vital stages required for SRI growth (Figure 14).

8.4 SRI GROWTH MODEL

According to the model, the growth of SRI (1) will influence investors to acknowledge the positive relationship between NFI and financial performance of corporations (2). The strength of this correlation can be determined by its potential to lower financial and reputational risk. Underlying influences such as moral concern and the impact from economic cycles can also affect this perception (2a).

The model assumes a discrepancy between perceived and actual value of NFI. As the gap diminishes, demand for NFI among investors will increase (3). As a market response, an increase in the number of third party research providers will generate growth and data availability (3a). These developments will increase investors' motivation to integrate NFI into traditional financial processes, as they have acknowledged its potential value.

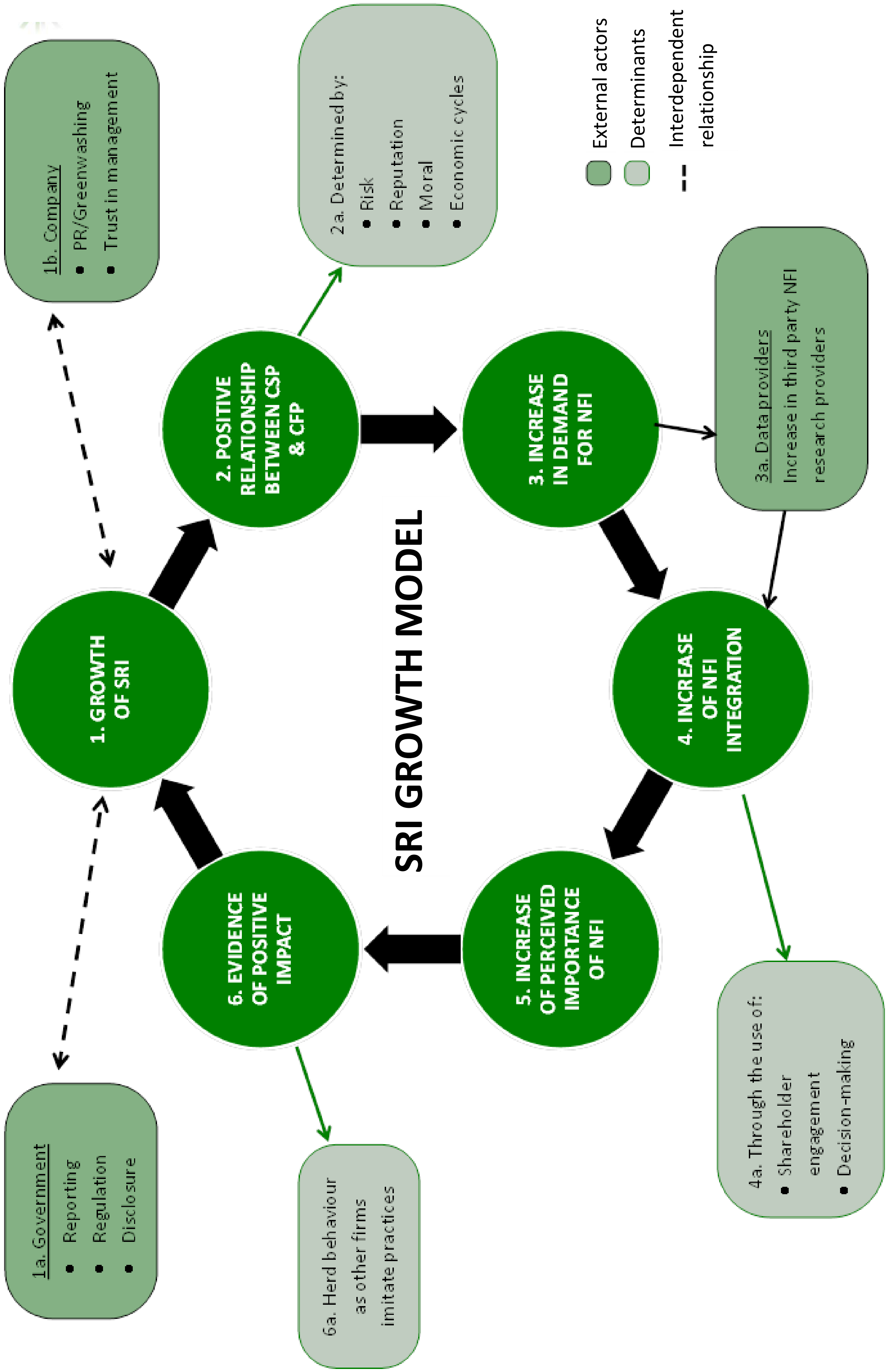
Consequently, both investors and external actors can affect the level of integration of NFI (4).

Investors can integrate NFI in the pre-investment due diligence process and shareholder engagement (4a). The additional benefits yielded from integration will affect the degree to which investors deem NFI important (5). Positive financial returns of a responsible investment can signal to investors the benefit of integrating NFI (6). The success of actors will lead to herd behaviour, as other investors imitate their behaviour (6a), thus stimulating further growth in the industry (1).

This cycle is self-reinforcing, stimulating growth as SRI spreads throughout mainstream investing. External actors, such as governments (1a), have the potential to accelerate this growth. The development of industry-specific reporting standards and increased regulation regarding disclosure will increase the value of NFI and further encourage the adoption of SRI. The sustained growth of SRI will have positive implications on the behaviour of companies (1b). Investors have the capacity to influence and apply pressure to management regarding adequate disclosure and transparency of their activities. As engagement increases, relationships between the two parties can develop as trust builds, further reducing the risk of corporate greenwashing.

As SRI develops, the influence of social and environmental impact performance data will play an increasingly important role in investment decisions. Overall, all these stages have an influence on the growth rate of SRI and will eventually lead to adoption within mainstream investing.

Figure 14: SRI growth model



CHAPTER 9 MANAGERIAL IMPLICATIONS

CHAPTER 9: MANAGERIAL IMPLICATIONS

The influence of NFI in investment decisions has increased in recent years. Our goal was to explore this trend and provide Vertigo Ventures with an insight into how investors use NFI when making investment decisions. The VV-Good Index is designed to quantify, compare and rank a company's financial, social and environmental performance. This chapter identifies some key findings that arose from our research. These can be used to help develop their metrics to match investor's demands, as well as highlight areas for future attention.

9.1 INDUSTRY-SPECIFIC METRICS

In both academic literature and our findings, it was expressed that there is a need for an industry-specific metrics, which takes into account the materiality of ESG in specific sectors. However, there is a lack of development in this direction as current reporting standards fail to recognise the importance of materiality. For example, product recalls and animal testing are imperative issues within the pharmaceutical industry, but won't be applicable to the banking sector. As such, pharmaceutical companies might find it more important to disclose on these factors, as the impact of non-compliance with industry regulation could have significant impact on investors.

The VV-Good Index attempts to standardise measurements across industries and create benchmarks to promote comparability. Despite comparability of industries being a desirable goal, we recommend that VV acknowledge the materiality of industry-specific issues in their index. This will increase the validity and recognition of their metrics.

9.2 SUGGESTIONS FOR FUTURE ANALYSIS

Our research found that investors do not expect pharmaceutical companies to disclose more non-financial information than firms in other industries. Since the pharmaceutical industry is highly controlled and regulated, shareholders expect companies to comply and disclose to a satisfactory standard. We recommend VV apply the VV-Good Index to an industry where control and regulation is not as strongly imposed.

Furthermore, patents have allowed pharmaceutical companies to establish a drug monopoly. Consequently consumers cannot easily differentiate between branded drugs. By applying the metrics to industries where performance is strongly dependent on consumer demand and where NFI reporting is not a legal requirement, the index can display how the significance of disclosure varies and thus its impact on financial performance.

An industry this could be applied to is the FMCG sector, which comprises of large corporations such as P&G, Unilever, Kraft and Nestlé. Due to their size, they are constantly exposed to public scrutiny. Through analysing the level of corporate disclosure, VV can acknowledge the role that NFI plays in industries where negative PR can have immediate, damaging effects on revenue and reputation.

9.3 FUND INDEX

It was acknowledged by one participant that an index would be a useful tool to assist in the investment decisions made by fund investors. Therefore, we would also recommend that VV consider the possibility to extend their metrics to include funds, particularly those who claim to be ethical. Since ethical funds have clear investment standards, VV will be able to analyse portfolio sustainability and performance more easily and compare funds based on these variables.

9.4 MEASURING MANAGEMENT AND GOVERNANCE

In our interviews, investors expressed the importance of trust in management as an indicator for long-term performance. Measures such as management reaction time to internal and external issues, and completion rate of sustainability projects, could be judged on a performance basis. This dimension could add valuable, 'difficult-to-find' information to the metrics. Incorporating this area enables the VV-Good Index to provide a more holistic evaluation of a company's performance.

9.5 MULTIPLE SOURCES

Interviewees highlighted the necessity to obtain NFI from various sources. We found that for screening companies in particular, cross-referencing sources ensured an objective view of the company's performance. Therefore, we recommend that VV cross-reference data sourced from corporate annual reports with other data sources to increase the reliability and accuracy of their calculations. Furthermore, there are opportunities for VV to collaborate with other consultancy firms within the industry. For example, the PRI hosts an engagement forum for members where they can collaborate ideas.

9.6 BECOMING A SIGNATORY OF THE PRI

The PRI has had significant influence on investors’ awareness of the importance of SRI and has highlighted the need for standardised reporting. As an SME, membership can offer great opportunities for VV to build awareness around their services. It would also enable VV to expand their client portfolio to a global market. Since the PRI does not rank members based on performance, the VV-Good Index could be of interest to other members within the financial industry, as it provides an additional service.

CHAPTER 10 ACADEMIC CONTRIBUTION

CHAPTER 10: ACADEMIC CONTRIBUTION

Our project explored ***"how does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry*"**. Our research has developed on previous studies by focusing on investors' perspective, as well as using qualitative research methods in conjunction with quantitative.

In current literature there is a limited amount of research, which takes an investor perspective on our research topic. There is a substantial amount of research available regarding companies acting sustainably and the effects of interaction between firms and shareholders. Our research adds to existing literature by trying to understand the research topic specifically from investors' viewpoint.

Present literature tends to use pure quantitative research in order to investigate research questions, whereas our utilisation of a triangulated research strategy provides more detailed information for analysis. By using qualitative methods we were able to collect rich information that pure quantitative methods could not collect effectively. However, by combining the two methods we were also able to add rigor to our research.

Few other academic inputs have taken an alternative perspective to a company view, and used qualitative methods to gain detail insights. By capturing investors' perspective in our investigation we moved to the research frontier. Overall, our contribution to the current literature on the topic of investors and the use of NFI is significant.

CHAPTER 11 LIMITATIONS

CHAPTER 11: LIMITATIONS

GENERALISABILITY

Despite taking measures to enable the generalisability of our results, limitations that could not have been foreseen restricted our ability to do so. Most of these limitations are due to time constraints.

Firstly, we acknowledge that the time constraint was a known factor and since our research was cross-sectional in nature we cannot guarantee that future studies will yield similar results.

Secondly, with respect to the in-depth interviews, the time constraint affected our ability to recruit investors. This was particularly the case for pension funds and NGOs. As a consequence of having a limited number of participants, the degree to which they represent the financial industry is limited. However, we attempted to restrict the effect of these issues by asking open-ended questions to all participants, capitalising on their knowledge.

In the student survey the convenience sample used cannot be generalised further than to the student population of the University of Bath. However, by ensuring an adequate number of participants, our data analysis was statistically significant. As such, we were able to show a trade-off between variables. Overall, our findings should not be generalised beyond this paper, but reflects a representation of current societal attitudes.

VALIDITY

With respect to the validity of our findings, the number of institutions represented in our sample resulted in a limited view of the use of NFI according to asset classes. As a consequence, our understanding of factors that can affect how investors use NFI could be biased. To avoid drawing conclusions based on the opinion of one interviewee, we consulted literature and identified similar arguments from other participants.

The student survey did not mention the underlying risk factor that could be associated with below-average social performance scores. Risk is a traditional decision-making factor in investments and should therefore have been accounted for in the table given to participants. However, by limiting the influence on investment decisions to two factors, it enabled us to clearly see the impact of each variable.

FRAMING

We recognise that the table displayed in our survey could have affected the validity of the responses. It can be argued that by placing social performance before financial returns in descending order, participants were lead to perceive that the company with the highest social performance was their preferred investment. If we were able to replicate the study, given the adequate resources, we would distribute surveys with the tables reversed or values in ascending order. This would improve validity by diminishing the potential of framing bias.

ACCURACY

It should be noted that part of our statistical data analysis of the student survey was based on the average investment allocations. By using averages, there is a risk of outliers skewing the data, making it inaccurate. However, data representation without using the average score for each company in some questions would have made it impossible to analyse the results.

PHARMACEUTICAL INDUSTRY

The initial focus of our research project was the pharmaceutical industry. We aimed to apply industry specificity by including interview participants from the industry as well as through the use of existing literature. This proved to be challenging. Firstly, although extensive literature covers CSR, philanthropy and charitable donations; pharmaceutical-specific literature in the area of sustainability is underdeveloped. Therefore we found it difficult to obtain relevant secondary data.

Secondly, we were only able to recruit one interviewee from the pharmaceutical industry. Unfortunately, we found a high level of unwillingness to disclose information beyond published sustainability reports, limiting the number of participants from this field. To overcome this, we asked all participants their views on the pharmaceutical industry and their expectations regarding non-financial information and reporting standards.

CHAPTER 12 FUTURE RESEARCH

CHAPTER 12: FUTURE RESEARCH

Our project has opened up many interesting avenues. We have therefore identified and proposed the following areas for future research:

- Exploring national and/or cultural differences to see how investors use NFI to inform their investment decisions in a global context
- Conducting a longitudinal study to establish a trend. As NFI becomes increasingly prominent in the investment community, the use of longitudinal studies could be utilised to monitor attitudes over time, differing by generation and economic cycle
- Analysing the relationship between disclosure and NFI, as well its varying aspects across different industries
- Focusing on trust in relation to management. We found that investors are becoming increasingly concerned with the quality of their investee's management, and consider the potential long-term financial cost of poor management in their decision-making process

CHAPTER 13 CONCLUSION

CHAPTER 13: CONCLUSION

Our research objective, ***"how does social and environmental impact performance data influence investors' decision-making process in the pharmaceutical industry"*** allowed us to explore a relatively new area of academic literature. We investigated investors' perception and adoption of NFI within decision-making processes, providing insight into some of the underlying dynamics of the financial industry.

By collecting primary data from a range of suitable participants, four research questions specific to the scope of our project were answered. We generated detailed information with a macro and micro focus on investors' behaviour surrounding NFI and sustainability. Investors' perceptions on the importance of NFI and the ways they integrate it into their investment decisions highlighted how the industry has grown and developed since the wake of the economic crisis.

Our findings contributed to the overall research objective requested by our sponsor, Vertigo Ventures. Significant themes and findings provided a descriptive, detailed and up-to-date 'snapshot' of the current financial industry, as well as key findings and areas for development directly related to their business capabilities. Subsequently, we were able to suggest implications that would reflect the demands of investors.

In addition to satisfying our sponsor's requirements, we also contributed to academic research, presenting a current and detailed view on a growing area of literature. Overall, our project has provided a substantial contribution to understanding investor's use of NFI in decision making and its potential implications for the future.

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